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MACKENZIE VALLEY PIPELINE INQUIRY

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IN THE MATTER OF APPLICATIONS BY EACH OF  
(a) CANADIAN ARCTIC GAS PIPELINE LIMITED FOR  
A RIGHT-OF-WAY THAT MIGHT BE GRANTED ACROSS  
CROWN LANDS WITHIN THE YUKON TERRITORY AND THE  
NORTHWEST TERRITORIES; AND  
(b) FOOTHILLS PIPE LINES LTD. FOR A RIGHT-OF-  
WAY THAT MIGHT BE GRANTED ACROSS CROWN LANDS  
WITHIN THE NORTHWEST TERRITORIES,  
FOR THE PURPOSE OF A PROPOSED MACKENZIE VALLEY  
PIPELINE

and

IN THE MATTER OF THE SOCIAL, ENVIRONMENTAL AND  
ECONOMIC IMPACT REGIONALLY OF THE CONSTRUCTION,  
OPERATION AND SUBSEQUENT ABANDONMENT OF THE ABOVE  
PROPOSED PIPELINES

(Before the Honourable Mr. Justice Berger, Commissioner)

Yellowknife, N.W.T.

August 18, 1975.

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PROCEEDINGS AT INQUIRY

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Volume 56

CANADIAN ARCTIC  
GAS STUDY LTD.  
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Mr. Ian G. Scott, Q.C.  
Mr. Stephen T. Goudge,  
Mr. Alick Ryder and  
Mr. Ian Roland for Mackenzie Valley  
Pipeline Inquiry;

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Mr. Jack Marshall,  
Mr. Darryl Carter, and  
Mr. John Steeves for Canadian Arctic Gas  
Pipeline Limited;

Mr. Reginald Gibbs, Q.C.  
Mr. Alan Hollingworth for Foothills Pipelines  
Ltd.;

Mr. Russell Anthony,  
Prof. Alastair Lucas for Canadian Arctic  
Resources Committee;

Mr. Glen W. Bell and  
Mr. Gerry Sutton for Northwest Territories  
Indian Brotherhood and  
Metis Association of the  
Northwest Territories;

Ms. Leslie Lane for Inuit Tapirisat of  
Canada and the  
Committee for Original  
Peoples' Entitlement;

Mr. Ron Veale and  
Mr. Allen Lueck for the council for the  
Yukon Indians

Mr. Carson H. Templeton for Environment Protect-  
ion Board;

Mr. David Reesor for Northwest Territories  
Association of Muni-  
cipalities

Mr. Murray Sigler for Northwest Territories  
Chamber of Commerce

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S.R. BLAIR

- In Chief

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1 Yellowknife, N.W.T.

2 August 18, 1975.

3 (PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

4 MR. SCOTT: Mr. Commissioner,  
5 any time you're ready, I understand all counsel who  
6 will be present today are here.

7 THE COMMISSIONER: All right.  
8 Well, this is the first formal hearing held here in  
9 Yellowknife since we adjourned on June 6th, and through-  
10 out the Inquiry when I travelled throughout the north,  
11 I have advised all parties regarding the places I have  
12 been, and when we adjourned on June 6th you will  
13 recollect I was on my way to Alaska, so I will take  
14 this opportunity of simply telling you where I went  
15 and telling you the people that I saw so that that  
16 will be in keeping of the practice that I established  
17 at the beginning of the Inquiry.

18 On Friday, June 6th, when the  
19 formal hearings were adjourned, I embarked upon a  
20 trip to the Yukon and Alaska, accompanied by Mr.  
21 Waddell, special counsel to the Inquiry. We took a  
22 helicopter from Inuvik and travelled along the Arctic  
23 Coast to Herschel Island, where we stopped at Herschel  
24 Island. We also stopped at the Dew Line station on  
25 the way to Herschel Island, then we went up the Firth  
26 River across the British Mountains and on to Old Crow.  
27 We spent the following day, Saturday, June 7th, visiting  
28 the muskrat hunting grounds on Old Crow Flats and  
29 visited the camps of the Old Crow people out on the  
30 flats. We also visited the camp of the University



1 of Toronto archaeological team near Old Crow where  
2 evidence has been found of man's first entry into the  
3 Western Hemisphere, approximately 27,000 years ago.

4 On June 8th we flew to Fair-  
5 banks and the aircraft that we were travelling in was  
6 struck by lightning on the way, which made that  
7 flight one we won't soon forget. Our Alaskan itinerary  
8 was arranged by the Alaska Pipeline Office of the  
9 U.S. Department of the Interior and it was on the  
10 basis of that itinerary that we travelled throughout  
11 Alaska. We went first of all to Prudhoe Bay. That  
12 was on June 9th, and we were shown the ARCO facili-  
13 ties there. Representatives of Arctic Gas were also present  
14 and showed us the Arctic Gas test site at Prudhoe Bay.

15 On Tuesday, June 10th, we spent  
16 the day in Fairbanks. We visited the pipeline impact  
17 Information Centre. We visited the Cheena hot oil test  
18 centre which is a site where elevated pipe is tested.  
19 We visited the headquarters of the Doyon Corporation,  
20 a native corporation, and I should say that we were  
21 accompanied at this time by a Mr. Fraser of the C.B.C.  
22 and a Mr. Sinclair of the "Edmonton Journal", and  
23 they devoted some of their evenings to determining  
24 what impact had occurred in Fairbanks on 3rd Avenue  
25 and other places, and I know that you would all want  
26 to commend Mr. Waddell and Mr. Fraser and Mr. Sinclair  
27 for so doing.

28 I had the pleasure of meeting  
29 Chief Justice Rabinowitz of the Supreme Court of the  
30 State of Alaska that day as well.



On Wednesday June 11th we went  
to what is known as the Copper Center area. We visited  
a native village called Gulkana. We visited the head-  
quarters of the Yathsa Native Corporation. We visited  
the Alyeska Camp at Glennallen and there we spoke to the  
Alaska Pipelines offices Environmental officer.



I should say that it may well turn out that Commission Counsel will wish to invite some of the persons I have named or other persons to come from Alaska to give evidence at this Inquiry.

I think the only other place that we have visited since then that has not been placed on the record was the visit we made on July 14th when we were returning from Old Crow to Yellowknife to the whaling camp at Whitefish



1 station on the Tuktoyaktuk Peninsula.

2 Well, that is just to make  
3 sure that everything is on the record, so Mr.  
4 Scott. --

5 VERNON L. HORTE, resumed  
6 CROSS-EXAMINATION BY MR. SCOTT:

7 Q Mr. Horte, the panel  
8 on construction that gave evidence before the  
9 Inquiry provided to the Inquiry a timetable of  
10 construction based on the acquisition by Arctic Gas  
11 of all required regulatory approvals in the spring  
12 of 1976.

13 I wonder if I can ask you  
14 whether you now regard that date, that is, early  
15 1976, as a workable one?

16 A Well, as time goes  
17 on it's a tighter schedule to contemplate, if you  
18 like, the receiving of all necessary permits by  
19 that date. So while we are still hopeful I think,  
20 you know, that it probably is too tight a date, the  
21 spring of '76.

22 Q What is your estimate  
23 today of the -- in terms of working out a construc-  
24 tion schedule, of the dates when all necessary  
25 approvals will be obtained?

26 A Well, we're still  
27 studying the situation, sir, to see -- even if  
28 there were a later date, if somehow we couldn't  
29 maintain that schedule that I indicated here,  
30 that is completion to the delta by 1980 and Prudhoe



1 Bay by 1981. At this stage certainly I am not in  
2 a position to state that that schedule couldn't be  
3 met with a later date, but it of course is more  
4 difficult the longer one has to wait.



V.L. Horte  
Cross-Exam by Scott

1 Q Let me ask you  
2 this, if there is a delay on that schedule of, let us  
3 say, six months, what portion of the timetable is  
4 sufficiently flexible that the slack can be taken  
5 up there?

6 A I think the real key to  
7 it is the amount of money that would have to be spent  
8 in that six-month interval that you're talking about  
9 in order to still attain the completion dates mentioned,  
10 and in other words the straight risk money that would  
11 have to be put up for more major expenditures than those  
12 now being put up in connection with the study phase  
13 and the regulatory phase, and it's difficult to really  
14 ascertain just what the situation may be at that time.  
15 It would depend, I think, to a great extent upon the  
16 feeling for the manner in which the proceedings had been  
17 carried out, whether or not an early date was contempla-  
18 ted, a judgment as to the chances of success, all of  
19 these factors would have to be taken into account to  
20 determine whether or not one would take the risk of  
21 at that time, let's say the spring of 1976, of going  
22 ahead with some rather major expenditures, or whether  
23 one would instead -- whether instead it would result  
24 because of a delay in making those expenditures in  
25 any revised construction schedule. That could easily  
26 shift it a year down the road, is what I'm saying.

27 Q Well, apart from shifting  
28 it a year down the road, do I understand you to say  
29 that you may contemplate taking up the slack that is  
30 created by a six-month delay in regulatory approvals by



V.L. Horte  
Cross-Exam by Scott

1 inducing your supporters or promoters to advance monies  
2 required for major expenditures before you have those  
3 approvals so that work can earlier be done?

4 A That's a possibility, sir,  
5 yes.

6 Q Would final design be one  
7 of those major expenditures that might take place be-  
8 fore formal approval has been granted?

9 A No, I don't think you'd  
10 really do the final design. I expect there may be  
11 terms and conditions or you'd want to await any specific  
12 terms and conditions issued with the certificate.  
13 which might affect that final design. So you could only  
14 go so far.

15 Q What sort of major  
16 expenditures might be undertaken before the regulatory  
17 approvals have been obtained?

18 A Well, I think what you  
19 could look at is pre-commitments on logistical materials,  
20 etc., that is in connection with moving materials down  
21 the river, pre-commitments in connection with construc-  
22 tion of barges, boats, etc., that would be required would  
23 be one of the areas that is very vital to early comple-  
24 tion. That's the major one that comes to mind.

25 Q Have you formed any judg-  
26 ment yet as to whether in the spring of 1976 that kind  
27 of effort will be made or authorized by your promoters?

28 A No, we haven't.

29 Q And do I understand you  
30 therefore to say that if it is not made, that is if the



V.L. Horte  
Cross-Exam by Scott

1 funds generally are not available until approvals are  
2 granted, that the project is perhaps a year behind the  
3 timetable which you've outlined in the construction  
4 panel?

5 A It could well be. That's  
6 certainly something that we have under study.

7 Q Now, I take it, Mr. Horte,  
8 that every pipeline project of major dimension requires  
9 a substantial amount of money to be expended on con-  
10 ventional engineering studies.

11 A Yes.

12 Q Yes, and I take it that  
13 this pipeline is no exception.

14 A That's correct.

15 Q Yes, and that because of  
16 the novelty of the engineering problems, a great deal  
17 of money that might not otherwise be expended has been  
18 expended in this case.

19 A Yes, it has.

20 Q Yes. Well now I've seen  
21 in the press a report -- there may be evidence of it  
22 here -- that Arctic Gas assets that it has spent \$60  
23 million on advanced studies, bringing it down to the  
24 application stage. Is that correct, more or less?

25 A Well, I'm not sure of  
26 the date of that report. At the present time we've  
27 spent something just in excess of \$80 million. At the  
28 first of the year I think it was about \$60 million we  
29 spent. By the end of this year our budget will have  
30 brought us up to \$100 million.



V.L. Horte  
Cross-Exam by Scott

1 Q All right. Well, let's take  
2 it at the beginning of the year when you had spent  
3 \$60 million. Now how much of that related to environ-  
4 mental or socio-economic work apart from conventional  
5 engineering studies that would be done on the pipeline?  
6 Approximately.

7 A Well, it's very difficult  
8 really to differentiate between the two on the straight  
9 environmental studies concerning the mammals, the birds  
10 and the bees, the fish, etc., if you like. As I  
11 recall, those costs have been something in the order  
12 of \$14 million. Not included in there, of course, is  
13 all the costs associated with the three test facilities  
14 that have been in operation which are very much associa-  
15 ted with the environmental aspects of the project, that  
16 is the construction of the pipeline and the operation  
17 of the pipeline in the permafrost areas. Those  
18 expenditures, as best I can recall, are in the order  
19 of \$10 million on those three test facilities, which  
20 therefore I think you'd have to look at as fundamentally  
21 environmental in nature.

22 Now there is a great deal of  
23 geotechnical work in addition to that that has gone  
24 on, and I'd say that geotechnical work to the extent  
25 that it's gone on with this pipeline is quite different  
26 than the normal geotechnical work that goes on with  
27 pipeline design, and has been a very major part of the  
28 studies undertaken. I can't place offhand for you a  
29 figure in connection with those studies, whether you  
30 would classify those or some part of those environmental



V.L. Horte  
Cross-Exam by Scott

1 or whether you'd classify them as engineering, I think  
2 they're a bit of both.

3 Q Well now, is the -- is any  
4 socio-economic study work you've done included in that  
5 \$14 million figure?

6 A No, it isn't. I think  
7 the straight socio-economic -- these figures I would  
8 want to have the opportunity to check, sir, but I'm  
9 inclined to think they're in the order of a million and  
10 a half dollars or thereabouts, on just straight socio-  
11 economic studies.

12 Q Well now, how are those  
13 figures altered for environmental studies and socio-  
14 economic studies, as a result of your expenditures this  
15 year?

16 A Well, the figures I have  
17 given you would really bring us pretty well up to date.

18 Q I see. There are a number  
19 of tag ends, some from last week, some from earlier,  
20 Mr. Horte. In planning your pipeline and its dimensions,  
21 did your people give any consideration to the possibility  
22 that the Arctic Gas Pipeline would carry gas from the  
23 north petroleum reserve No. 4, which has now been  
24 released by the President?

25 A Yes, in that when we  
26 were considering and in previous discussions, testimony in  
27 this hearing, when I have been talking about the North  
28 Slope I have, as the potential of the North Slope and  
29 the development of the North Slope I haven't differentia -  
30 ted as between Pet 4 and other acreage. I've just considered



V.L. Horte  
Cross-Exam by Scott

1 that area including Pet 4.

2 Q Well, do I understand  
3 then that the evidence you have previously given on the  
4 subject of looping is not altered by the fact that that  
5 reserve has now been released?

6 A Well, when you talk  
7 about "that reserve" you're talking about no reserve.  
8 You're talking about wildcat acreage primarily that has  
9 to be explored. It's just that the ownership of that  
10 land on the North Slope is owned by the U.S. Navy, it's  
11 been an acreage set aside for the U.S. Navy. The  
12 exploratory activity that's taken place on that acreage  
13 is almost negligible.

14 Q No, but as I understand,  
15 that is now a possible area of exploration --

16 A Yes.

17 Q -- and one which will be  
18 obviously seriously considered.

19 A I understand that the  
20 U.S. Navy has entered into a contract for the -- for  
21 a certain amount of exploration on those lands with  
22 Husky Oil, who I think will actually physically carry  
23 out the work, drilling certain wells and carrying out a  
24 good deal of seismic activity in the area. So it's in  
25 the early stages, if you like, of exploratory effort.



V.L. Horte  
Cross-Exam by Scott

1 Q Does the availability  
2 of that area for exploration have any effect whatever  
3 on your prognosis about looping either the Interior  
4 or the North Shore Route?

5 A No, sir, I made no  
6 differentiation. I assumed, in any of my comments,  
7 that exploration would take place on any of that land  
8 regardless of ownership.

9 Q Now, Mr. Horte, I would  
10 like to ask you something about the relationship  
11 between NES and Arctic Gas in connection with en-  
12 vironmental work that was done. Now, in your evidence  
13 you referred to the fact that Mr. Hemstock was  
14 the Director of Environmental Studies but at all  
15 times an employee of Arctic Gas, do I have that  
16 right?

17 A That is correct,  
18 yes.

19 Q What were his particular  
20 terms of reference?

21 A Well, he's the person  
22 or officer, if you like, in the CAGSL organization  
23 responsible for the environmental studies and  
24 supervising the environmental studies that N.E.S.  
25 has suggested be initiated. Those are all reviewed  
26 by Mr. Hemstock and his staff. They are also reviewed  
27 by Mr. Hemstock who presents such plans to the  
28 environmental committee of the owner companies, so  
29 that these plans are reviewed very thoroughly and  
30 Mr. Hemstock is the man responsible for seeing, from



1 a CAGSL standpoint that we are spending our money  
2 wisely and properly in the environmental area.

3 Q Well, I am not quite  
4 sure I understand the interaction. At Arctic Gas  
5 you have Mr. Hemstock who is called the Director  
6 of Environmental Studies.

7 A Yes.

8 Q At Northern Engineering  
9 Services, on the other hand, there is a group  
10 under Dr. Clark that is jointly charged with environ-  
11 mental and engineering work, is that correct?

12 A Well, I think that  
13 under Dr. Clark, environmental and geotechnical.

14 Q Correct, yes.

15 A Yes.

16 Q Do I have the positioning  
17 of the two groups?

18 A Yes, I think you do.

19 Q How do they interact?  
20 Who initiates, who decides, who recommends? We know who pays

21 A The  
22 initiation in the first instance would start with  
23 the N.E.S. environmental people who had to carry  
24 out the overall studies and they budgeted for or  
25 initiated with us plans with respect to environmental  
26 work that should be done at various points in time.

27 In addition to that the  
28 Environmental Protection Board who acted as an  
29 advisor to us likewise submitted to us, CAGSL,  
30 what they felt would be environmental studies that



1 should be undertaken. It was the function of Mr.  
2 Hemstock and his staff to review these proposals made  
3 to him to add to those any that he or his own staff  
4 felt were appropriate and then to review these plans  
5 with an environmental committee composed of representa-  
6 tives from each of the owner companies in CAGSL.

7 Following this all of these  
8 environmental plans were also reviewed by the  
9 management of Arctic Gas, including myself, for  
10 budget approval and ultimate approval by the  
11 management committee. That, I think, describes as  
12 best I can the process that was utilized not only  
13 in the environmental area, but other areas as well.

14 Q Well, let's deal with  
15 an example to see if I understand.

16 Do I understand that the  
17 environmental people in N.E.S. through Dr. Clark  
18 would make a proposal for a study or a project and  
19 that proposal would go forward to Mr. Hemstock?

20 A Well, it was done  
21 in proposals. You would budget well in advance  
22 of the particular time of year, you know, as a  
23 whole. Plan for a season of the year, if you like,  
24 but, that correction, yes, proposal.

25 Q And I take it then that  
26 Mr. Hemstock and Arctic Gas would decide whether  
27 the proposal was within the budget or was desirable  
28 or undesirable.

29 A Well, no, the proposals  
30 were first submitted to him as budget proposals. He



1 then went through the mechanics that I have just  
2 finished outlining with respect to those proposals  
3 and ultimately those proposals, some of which might  
4 have been rejected, others might have been added  
5 were ultimately approved by the management of  
6 CAGSL and the management committee.

7 Q Well, let me ask you  
8 this, were any environmental proposals coming forward  
9 from N.E.S. rejected from time to time?

10 A I can't be that specific.  
11 I would be very surprised if there were not some and  
12 I would be very surprised likewise if others weren't  
13 added that CAGSL suggested or the Environmental  
14 Protection Board or the Environmental Committee of  
15 CAGSL may not have suggested.

16 Q And I take it that  
17 any rejections could be justified either on budgetary  
18 grounds or on Mr. Hemstock's opinion approved by  
19 his superiors that it was inappropriate for one  
20 reason or another.

21 A Yes.

22 Q Well, now, you agree  
23 that I have correctly described the joint geotechni-  
24 cal and environmental group that worked under  
25 Dr. Clark at N.E.S., may I ask whether this proposal,  
26 this proposal for organization of the staff was  
27 one that was made by Arctic Gas or by N.E.S.?

28 A I am not just  
29 sure what part of the -- you mean the whole mechanics  
30 that I've just outlined?



V.L. Horte  
Cross-Exam by Scott

1 Q Well, let me make  
2 clear what I am getting at. It has been suggested  
3 to me that this amalgamation of geotechnical people  
4 and environmental people under even such a distinguished  
5 engineer as Dr. Clark is an unusual marriage and I  
6 want to know whether that marriage was made at  
7 Arctic Gas's insistence or because N.E.S. wanted  
8 it that way.

9 A I am not sure. I  
10 can't answer that question. I can find out that  
11 answer for you.

12 Q I would be obliged, thank  
13 you.

14 Well, now, when a project  
15 was decided on and approved by Mr. Hemstock and  
16 the Arctic Gas management, who ultimately was responsi-  
17 ble for establishing the terms of reference of the  
18 project?

19 A Well, each item in  
20 the environmental studies would be budgeted  
21 for. Each individual item whether it be a particular  
22 study concerning a study on fish in a particular  
23 area of the country or a study concerning the  
24 study of birds on the North Slope, each of these  
25 were budgeted separately so that when we were to  
26 proceed with that particular item, it was a matter  
27 of an A.F.E. being filled out and the project  
28 went ahead.

29 N.E.S. then actually carried  
30 out the program that everybody had agreed upon.



V.L. Horte  
Cross-Exam by Scott

1 Q Well, would it be  
2 correct to say then that the terms of reference of  
3 any particular program were jointly negotiated in  
4 between N.E.S. and Dr. Clark on the one hand and  
5 Mr. Hemstock and Arctic Gas on the other?

6 A They were all  
7 thoroughly reviewed in the very budget process that  
8 we have discussed, so that once that was approved,  
9 it was just simply a matter of implementing the  
10 program.

11 Q Well, now when environ-  
12 mentalists were in a position to report on a study  
13 or finding I take it they reported to Dr. Clark?

14 A I can't tell you  
15 the exact reporting mechanism within N.E.S. They  
16 had a man that was in charge of the environmental  
17 aspects. They had other men that were in charge of  
18 the geotechnical aspects. Dr. Clark, I gather had  
19 both of these functions reporting to him, but  
20 I think the main lines of communication, if you  
21 like in the environmental area were between Mr.  
22 Hemstock and the man that was in charge of the  
23 environmental aspects for N.E.S. I think there  
24 was more communication there, if you like than  
25 between Mr. Hemstock and Mr. Clark. Mr. Clark,  
26 I think, to a greater extent was looking after the  
27 administrative aspects of the environmental studies.  
28  
29  
30



V.L. Horte  
Cross-Exam by Scott

1 Q Well, what was the avenue  
2 of communication then, as between these two companies  
3 when an environmental finding was made which might be  
4 thought to have geotechnical implications?

5 A Well, I'm sure those were  
6 reviewed within N.E.S., within Dr. Clark's group, and  
7 the result was submitted to CAGSL.

8 Q Well, was that a situation  
9 in which Mr. Hemstock went to the geotechnical people  
10 at N.E.S.?

11 A I don't know whether Mr.  
12 Hemstock went to them or they went to him, I  
13 don't think I can state it any more clearly. There  
14 was constant communication between these two groups.  
15 I don't really follow the question, sir. I don't under-  
16 stand what you're getting at. Maybe I can help you if --

17 Q Well, I presume that once  
18 an environmentalist had made a finding or a determina-  
19 tion as a result of a study, it was necessary for him  
20 to communicate that with some direction, perhaps to  
21 the people who were charged with solving the geotechnic-  
22 al problem.

23 A Yes, and I'm sure you'd  
24 get directly in touch with Mr. Clark in those areas,  
25 and I'm also just as confident that we would have the  
26 results of all that environmental work.

27 Q Well then, would it be  
28 correct to say that Mr. Hemstock on behalf of Arctic  
29 Gas was the conduit that brought environmental findings  
30 to the attention of the N.E.S. geotechnicians?



V.L. Horte  
Cross-Exam by Scott

1                                   A     Well, I'm sure he would  
2     be part of it, but right within the N.E.S. organization  
3     they had a man heading up the environmental aspect.  
4     They had a man heading up the geotechnical aspect. This is  
5     the same organization, and under Dr. Clark I would  
6     anticipate that those two groups were in close communi-  
7     cation and that they were also in close communication  
8     with Mr. Hemstock, in the environmental area, and CAGSL's  
9     engineers in the geotechnical area.

10                                  Q     Well, let me put it to  
11     you this way. Would it be possible that any consultant,  
12     any environmental consultant on the staff of N.E.S.  
13     would have reason to complain about communicating his  
14     views, about his ability to communicate his views to  
15     the geotechnical people?

16                                  A     Well, I wouldn't think  
17     so. Have you heard of such a situation?

18                                  Q     I don't answer the  
19     questions. Well now, Mr. Horte, I have read your  
20     evidence on the significance or insignificance of the  
21     proposed Mackenzie Valley Highway in connection with  
22     this project, and do I understand it to be that if the  
23     highway were built at least at certain portions of its  
24     route, you would find it useful but you don't need it?

25                                  A     I think that's the  
26     substance of the testimony I gave last time I was here,  
27     sir.

28                                  Q     Yes. Now I take it it  
29     appears relatively clear that little of the remaining  
30     portions of the highway will be constructed as far as



V.L. Horte  
Cross-Exam by Scott

1 we can tell within the period during which you propose  
2 to build your pipeline, you're aware of that, aren't  
3 you?

4 A Well, I understand there  
5 has been a slowdown for the present. I don't know how  
6 far that will extend or what will happen over the next  
7 few years.

8 Q Well now, Mr. Dau told  
9 us on April 21st in Volume 39 that in drawing up your  
10 construction plan you had specifically determined to  
11 use portions of the Mackenzie Highway that were envisaged  
12 but which have not yet been built.

13 A Yes, I think our construc-  
14 tion plan envisages the highway being built to Fort  
15 Good Hope and in fact on reading my previous testimony  
16 I think it was in error. I think that I indicated in  
17 that testimony that the cost estimates made did not  
18 contemplate any highway construction, and to that  
19 extent I was in error. The construction plan definitely,  
20 and the cost estimates therefore, reflect a highway to  
21 Fort Good Hope.

22 Q All right. Are you or your  
23 people in any position to estimate the alterations in the  
24 construction plan in terms of cost, as well as in other  
25 matters, that will be necessary assuming the highway is  
26 not built?

27 A Yes, I'm sure we will  
28 be able to do that.

29 MR. SCOTT:

30 Is Mr. Dau going to be  
able to deal with that, Mr. Marshall, later in the week?



V.L. Horte  
CrossExam by Scott

1 MR. MARSHALL: I don't know.

2 MR. SCOTT: I take it Mr. Horte  
3 isn't able to deal with it now.

4 A Well, I've only had  
5 very preliminary discussions on it. I don't know  
6 whether they have re-estimated it at this stage or not.  
7 I don't think it would be a major undertaking, and I  
8 understand that the impact on cost would not be that  
9 great, but --

10 Q Are there any implications  
11 at all in those possible facts in terms of timetable?

12 A No.

13 Q Has any consideration been  
14 given to addressing the Federal Government on the ques-  
15 tion of the construction of a highway?

16 A Not to my knowledge.

17 Q Has any consideration been  
18 given to participating in the construction of part of  
19 the highway yourselves?

20 A No sir.

21 Q Now, Mr. Horte, in your  
22 previous testimony at page 5921 in Volume 45, you said --  
23 and I think I summarized it correctly -- that,

24 "All our costs will be incorporated,"

25 "All our costs of construction will be incorporated  
26 and will be completely recoverable in the rates."

27 Now, do I understand from that that what that means is  
28 that while you estimate your costs prior to construction,  
29 the consumer will ultimately pay whatever it costs?

30



V.L. Horte  
Cross-Exam by Scott

1                   A     Providing those costs are  
2 sound and legitimate costs, they'll all be reviewed  
3 by the regulatory body that sets rates and we would  
4 anticipate yes, that they will all be recovered over the  
5 life of the project from the ultimate customers, just  
6 like any other pipeline.

7                   Q     Well, what are the incen-  
8 tives which you are aware that will work on you to  
9 keep those costs down?

10                  A     Well, simply the fact  
11 that they are so high already that --

12                  Q     I thought that might be  
13 a factor that worked the other way, in these matters.

14                  A     No, I don't think so, not  
15 when you're talking about the economics of moving gas  
16 from these frontier areas. Well, besides that I  
17 think there's just the inherent fact that this project,  
18 like any other pipeline project, I think, is first of  
19 all when it is the only company, everybody tries to  
20 do a sound and efficient job; and in addition to that  
21 the regulatory bodies go over the plans in detail and  
22 have to approve what you intend to construct and also  
23 that portion of it that will be input into the rate  
24 base, so it isn't just something that you can willy-  
25 nilly go out and spend a lot of money on.

26                  Q     I recognize the regulatory  
27 body as a specific pressure of which you are aware.  
28 Are there any other pressures of which you are aware  
29 to keep costs down?

30                  A     There is always a pressure



V.L. Horte  
Cross-Exam by Scott

1 to keep costs down, and any waste of funds in the trans-  
2 portation system itself does one of two things: It  
3 either increases the cost to ultimate customers that  
4 you're serving and therefore it reduces your competitive-  
5 ness in the market place, or two, if those costs are  
6 fixed by the competitive market place, excessive costs  
7 in the transmission facility will result in a lower  
8 net back to the producer and a lower incentive there-  
9 fore to develop the future reserves that any pipeline  
10 must rely upon. So there are very strong incentives  
11 to keep costs down in your own self-interest.

12 Q Is your borrowing program  
13 geared to your construction costs?

14 A Yes, it's a major factor.  
15 We hope to borrow approximately 75% of the total cost of  
16 the project, so to the extent that the costs are  
17 increased, the amount of borrowing required will be  
18 increased. Likewise the same is true with respect  
19 to the equity.

20 Q And to that extent those  
21 estimates are relatively critical.

22 A Yes sir.

23 Q Is checking these estimates  
24 one of Northcan's terms of reference?

25 A No, not one particular  
26 element of Northcan's terms of reference. They will  
27 certainly be looking at the construction cost aspect,  
28 the actual physical construction part of it as a further  
29 check.

30 Q Have they any responsibility



V.L. Horte  
Cross-Exam by Scott

1 in validating the cost estimates that Arctic Gas makes?

2 A No, not as such.

3 Q Well now, Mr. Horte,  
4 you've -- in your previous evidence you've been asked to  
5 compare your project with the El Paso project from time  
6 to time, and it will not surprise you to remember that  
7 you compared it favorably, and I think one of the  
8 reasons you advanced is that your project is more  
9 economical.



1 A Yes, that is our belief.

2 Q And one of the areas in  
3 which it is more economical is that of course it  
4 provides a lower tariff for transporting gas.

5 A Yes.

6 Q Well, now I think your  
7 projected tariff is about 90¢ in MM B.T.U.'s is  
8 that correct?

9 A To the -- to what point?  
10 To the U.S. - Canadian border point?

11 Q Carrying gas from the  
12 Alaska border down to the American border.

13 A I think that is approxi-  
14 mately correct on a fully loaded system. Those  
15 figures are right in our exhibit here.

16 Q Now, what is your  
17 estimate of the equivalent El Paso cost of transporting  
18 gas from Alaska to the border?

19 A Oh, maybe I could ex-  
20 press it this way so that it will be --

21 THE COMMISSIONER: Excuse  
22 me, before you do, Mr. Horte . Mr. Scott, what  
23 are you talking about? Gas from Prudhoe Bay to the  
24 49th parallel or gas from the Alaska-Canadian  
25 border to the 49th parallel?

26 MR. SCOTT: I think actually,  
27 Mr. Commissioner, the projected figure which Mr.  
28 Horte is correct, is given in one of their documents,  
29 is 90.9¢<sup>for</sup> transporting gas from Alaska, that is, from  
30 within Alaska to the United States border. I'll have



1 to check the figure, but I think that is correct.

2 MR. MARSHALL: Mr. Scott,  
3 with respect to El Paso it seems to me that you  
4 have to talk about common reference points. You  
5 can talk about the tariff for transportation across  
6 Alaska, then there are other components for liquifac-  
7 tion, there are other components for sea transport of  
8 LN6, other components for re-gasification and  
9 other components for transportation to the same  
10 market point and it is a very, very complex --

11 MR. SCOTT: I am quite  
12 prepared to let Mr. Horte select the comparisons,  
13 but when he says that it is more economic and gives  
14 Arctic Gas's figure for the tariff, I want to know  
15 what the comparable estimate is for El Paso. If the  
16 position is that it is economic, I would like to be  
17 able to judge to what extent it is economic.

18 A Well, maybe I could  
19 come at it best this way then, not to compare  
20 absolute tariff charges to each of the points because  
21 I remember particularly the differences and  
22 express it this way that as compared to Canadian  
23 Arctic Gas, it is our estimate that the cost of  
24 moving Alaska gas to the L.A.-San Francisco area is  
25 some 30 to 40¢ an m.c.f. greater via the  
26 El Paso system than coming down to our system to a  
27 connection with the U.S. border and then a transportation  
28 system from that point on to those two market areas.  
29 That is our estimate as contained in a study presented  
30 to the Federal Power Commission as to the advantage  
of our project over El Paso's on the west coast



V.L. Horte  
Cross-Exam by Scott

1 markets. With respect to the movement of Alaska  
2 gas to the Chicago area of the United States, as  
3 between the two projects, we estimated that the  
4 cost differential was 80¢ or thereabouts different.

5 By reason of the fact that  
6 in the case of the El Paso gas landed on the west  
7 coast, if it were to get to the Chicago area, in  
8 our estimation there is a substantial cost on the  
9 interchange movement attributable to moving gas  
10 from the west coast to Chicago notwithstanding  
11 the fact that there are facilities where some  
12 interchange can take place in west Texas.

13 El Paso on the other hand  
14 contends that those costs as between movement from  
15 the west coast to the Chicago or eastern part of the  
16 U.S. are negligible. Now, there's the difference.

17 Q Accepting the  
18 comparisons that you have made, in other words,  
19 allowing you to select the equals.

20 A Yes.

21 Q Do I understand that  
22 the delivery to the west coast has about a 30¢  
23 spread in your favour and delivery to Chicago  
24 has about an 80¢ spread in your favour?

25 A That's our estimate, sir  
26 yes.

27 Q And does that include the  
28 fact that as I understand it, only 80% of the Alaska  
29 gas will be moved, whereas 90% will be moved under  
30 your system?



V.L. Horte  
Cross-Exam by Scott

1 A No, I think this is on a  
2 straight m.c.f. basis and doesn't take into the  
3 account the fact that under the El Paso system and  
4 because the fuel usage is higher, that isn't a  
5 cost element in this. This is a cost of moving  
6 the m.c.f.'s that land in those markets on the  
7 respective two systems.

8 Q Yes.

9 A -- from the respective  
10 two systems.

11 Q And I take it therefore  
12 that apart from the cost of movements spread, your  
13 scheme in your judgment has an additional advantage  
14 because you can in fact move 10% more of the gas  
15 because you don't use it in liquifying it.

16 A I don't think the  
17 difference is quite that great. As I recall we  
18 estimate their fuel usage at -- in getting it  
19 directly right to those respective markets, it is some-  
20 where between 16 and 18%. Ours, as I recall, is about  
21 9.4% to the U.S.-Canadian border and then the  
22 additional fuel required from there to get it  
23 to those markets, to the best of my recollection is  
24 somewhere around 3 or 4%. So you'd be talking  
25 somewhere in the order of 13% on the one system,  
26 maybe versus 18 on the other.

27 Q Yes. And how  
28 much Alaskan gas is your project going to move  
29 in the fifth year ?

30 A Our estimate is 2.25



V.L. Horte  
Cross-Exam by Scott

1 billion cubic feet a day.

2 Q Yes, and we can there-  
3 fore calculate the saving under your project by  
4 virtue of the tariff, by multiplying that figure for  
5 the fifth year against the spreads that you've  
6 described which I understand are estimated.

7 A Well, I don't know  
8 how you calculate a saving. The savings I quoted  
9 are on a cents per m.c.f. of gas moved to the market.  
10 Now, another factor, I don't know how you, exactly  
11 you evaluate that, is the fact that they will get  
12 less m.c.f.'s via the El Paso system. The cost  
13 per m.c.f., the differential is as I have stated.

14 Q Yes, but dealing only  
15 with the differential and assuming at the end of  
16 the line you want to buy, if you can imagine this,  
17 an m.c.f. of gas, you calculate the reduction in  
18 the cost, or the potential reduction in the cost  
19 of that gas by looking at the spread between the  
20 two products.

21 A Well, I think that's  
22 only true unless you have some other source in which  
23 you can buy or obtain that commodity at an equivalent  
24 price. The difference.

25 Q Well, then what is  
26 the -- if it means nothing at the end then perhaps  
27 I have misunderstood you. What is the virtue in  
28 assuming that there is a spread difference between  
29 you and El Paso?

30 A Well, I think the



V.L. Horte  
Cross-Exam by Scott

1 difference is that that amount of energy is lost  
2 from the standpoint of it being domestic energy in  
3 the U.S. In other words, they have -- they would have  
4 that much less domestic energy available to the  
5 market from their own -- within their own country.  
6 That doesn't mean necessarily that they are going  
7 to be short that amount of energy. There may be  
8 other forms of energy that will look after that or  
9 they may import that quantity of energy, but it is  
10 a factor, we think a very significant factor when  
11 you lose, if you like, that much energy, that could  
12 be saved through the movement -- by moving the gas  
13 through the Arctic Gas system.

14 Q Well, Mr. Horte, I  
15 am sorry, I don't understand. What is meant then  
16 by comparing the spread between the two tariffs  
17 which you compare favourably from the point of  
18 view of Arctic Gas, what does that mean in the  
19 end?

20 A Well, let me put it  
21 this way that let's say that you had two pipeline  
22 systems a thousand miles long, one from point  
23 A to Point B and the other doing exactly the same  
24 thing.

25 Different design, etc., the  
26 one capable of moving 2 billion cubic feet a day and  
27 the other one capable of moving 1.9, let's say,  
28 billion cubic feet a day. You could well have a  
29 situation where the cost of transmission per m.c.f.  
30 for those two systems depending on the design might



V.L. Horte  
Cross-Exam by Scott

1 be identical. In fact, you might under a particular  
2 set of circumstances or design conditions have a  
3 situation where one project moving the 1.9  
4 on a cents per m.c.f. basis might move it cheaper.  
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V.L. Horte  
Cross-Exam by Scott

1 Now, that doesn't account  
2 for the other 100 million cubic feet a day, and in the  
3 example we're using, the fact that that 100 million  
4 cubic feet a day was used up or utilized in transporting  
5 the other 1.9 but the actual cost having taken into  
6 account the cost of that gas used to fuel that system  
7 might still be cheaper for the 1.9 in my example.

8 Q All right.

9 A But you will have lost  
10 that energy if you adopted that system.

11 Q Well, let's see if I  
12 understand now. Let's take California as the end point,  
13 do I understand you to say that Arctic Gas' costs of  
14 transporting are 30¢ less per Mcf.

15 A For those Mcf.s transpor-  
16 ted, yes.

17 Q For those Mcf.s transported.

18 A Yes.

19 Q So on an absolutely free  
20 market you would be able to sell that Mcf. at a lower  
21 price than your competitor, who has had to pay 30¢  
22 more to bring it to the same point.

23 A No argument.

24 Q All right, so that in  
25 terms of costs you can measure the saving by utilizing  
26 your route by multiplying the spread times the volume  
27 of gas that comes out every day.

28 A Well, that certainly is  
29 true with respect to on an Mcf. basis. I don't  
30 know exactly how you measure the loss, if you like, in



V.L. Horte  
Cross-Exam by Scott

1 your equation, of the fact that you're not getting  
2 this other 5% of the gas. Now that is taken into account  
3 I might say, in the cost per Mcf. of moving the lesser  
4 volume in that it is a fuel cost. There is a fuel cost  
5 involved in calculating the rate on the El Paso  
6 system, the utilization of that gas, that's part of  
7 the equation that results in the <sup>per</sup> Mcf. charge on the  
8 El Paso system.

9  
10 Q But what you can say in  
11 an ideal situation where there were unlimited supply  
12 in Alaska and unlimited demand and where both the  
13 El Paso route and the Arctic Gas route were built,  
14 that we, Arctic Gas, can bring you this Mcf. for 30¢  
15 less.

16 A Yes.

17 Q And I take it that over  
18 a day that, in a five-year period, would produce  
19 a theoretical saving of about six or \$700,000.

20 A I have to do a little  
21 arithmetic there.

22 Q I have the process right,  
23 have I? I multiply two times 2.25 times 30, or times  
24 80 if it's going to Chicago.

25 A Yes, yes, it would be  
26 six or \$700,000.

27 THE COMMISSIONER: That's what  
28 the U.S. consumer, that's the saving to the U.S.  
29 consumer each day if his gas is shipped through Canada  
30 instead of by the El Paso route.

A Well, you can't necessarily



V.L. Horte  
Cross-Exam by Scott

1 make that jump, sir. The price in the ultimate  
2 market place as set by the Federal Power Commission  
3 might be identical, and the differential, if you like,  
4 would mean a lesser price for the gas field than would  
5 otherwise be the case.

6 Q But looking at it in the  
7 abstract <sup>from</sup> point of view of the U.S. consumer, in the  
8 absence of Federal regulatory intervention, that is  
9 a saving to him each day if the gas that he wants comes  
10 through Canada instead of by via the El Paso route.

11 A Forgetting completely  
12 about regulation, I don't know that we'd end up with  
13 the consumer as such in that the price of gas would  
14 go to its competitive level under an ideal situation,  
15 whatever that may be. The customer would buy gas or  
16 his form of energy on the cheapest basis possible, if  
17 that were the scenario, if you like. If that sets the  
18 upper limit, competitiveness set the upper limit it  
19 would still trickle back through to the producer then  
20 in that situation, as getting a lesser price than he  
21 would otherwise get under those circumstances.

22 MR. SCOTT: Q But Mr. Horte,  
23 doesn't it at the worst give you when you go to the  
24 regulatory agency a little more room to play because  
25 you can say, "Our costs of bringing this down here  
26 is 30¢ less."

27 A Certainly, we think it's  
28 a great advantage whichever way you want to look at it,  
29 is a tremendous advantage to the ultimate customer  
30 because if you say that the price to the customer



V.L. Horte  
Cross-Exam by Scott

1 is fixed and the benefit goes back to the producing end,  
2 that differential can make a great difference in whether  
3 or not exploratory activity will go forward. The differ-  
4 ential is very important to exploratory activity and  
5 therefore to future supplies of energy for that customer.

6 Q And the differential, as  
7 I understand you, or the spread, can be utilized either  
8 going back to the producer increasing the funds available  
9 for exploration, or maintaining the price at below  
10 market, perhaps.

11 A Yes.

12 Q Or for some other public  
13 purpose.

14 A Yes.

15 Q Mr. Horte, in dealing  
16 with hunting and trapping lines, I think you said in  
17 your evidence in chief -- I don't have the page but  
18 I think it's in your canned evidence -- that you,  
19 because of the multiplicity of these lines and perhaps  
20 your precise or your imprecise knowledge about where  
21 they were, simply decided that you would select a route  
22 initially without regard to their location unless they  
23 were obvious. Is that your evidence?

24 A Well, the initial route  
25 was selected and I think I went on for some pages and  
26 described that. Superimposed on all that were the  
27 -- all the environmental considerations which -- and  
28 a great many of those have already been taken into  
29 account, but finally in the ultimate selection there  
30 was superimposed upon the route, all the other environmental



V.L. Horte  
Cross-Examby Scott

1 factors including trapping lines, etc., and these were  
2 considered to the best of our ability in trying to  
3 select the ultimate route. With respect to the trap-  
4 lines which cover so much of the area, you certainly  
5 couldn't avoid all the traplines, it would be impossible  
6 to build a pipeline through the area and accomplish that.  
7 They were taken into consideration and certainly there  
8 are other witnesses that I think could better describe  
9 for you that process and what effect the location of  
10 these may have had on the ultimate location of the  
11 pipeline.

12 Q But wasn't it your  
13 conclusion that because traplines could not be avoided,  
14 they were substantially ignored as a factor in route  
15 selection?

16 A I am inclined to think that  
17 that was the situation, and I think I so testified  
18 before. I think that is a question, however, that can be  
19 answered better by the people that were directly involved.  
20 I believe that was the situation because there were so  
21 many of them you couldn't, if you were going to run  
22 the pipeline anywhere through the area, they couldn't  
23 be avoided. Furthermore, I think from an environment-  
24 al standpoint it was felt that while there might be some  
25 impact, certainly during the construction period, the  
26 impact on the trapping areas over the longer term would  
27 not be of major consequence.

28 Q Well now, can you tell  
29 me whether you or your consultants have had consulta-  
30 tion with the proponents or the organizations responsible



V.L. Horte  
Cross-Exam by Scott

1 for other kinds of land use that might in some way  
2 affect location. I'm thinking, for example, of the  
3 Kendall Island Bird Sanctuary. Would you consult with  
4 those people as to your route?

5 A I'd be surprised if we  
6 hadn't, but I don't know specifically. You'll have  
to ask our environmentalists.

8 Q Well, let me give you  
9 some other names of agencies or organizations concerned  
10 about -- that might be concerned about routing  
11 and if you can't deal with the question, perhaps you  
12 can ask Mr. Marshall to let us know what consultation  
13 and what result, if consultation occurred, you note  
14 in connection with them. The Kendall Island Bird  
15 Sanctuary. Mackenzie Reindeer Grazing Preserve. The  
16 Peel River Game Preserve. The International Biological  
17 Program Groups preparing ecological reserves. The  
18 Firth River, the Rupp River, Campbell Lake, Ebbutt  
19 Hills and Brackett Lake. The Arctic International  
20 Wildlife Range. Parks Canada, relative to their plans  
21 for national parks, national landmarks, national  
22 historic waterways. Recreation and Tourism units of  
23 the Territorial Government. Do you know anything  
24 about any consultations that occurred with any of these  
25 agencies relating to routing?  
26  
27  
28  
29  
30



1                   A     Well, I am sure that  
2     there were consultations with many of them. I  
3     know that I have had discussions myself with the  
4     International Arctic Wildlife Refuge people and  
5     many of the names that you mentioned there certainly  
6     ring a bell. I haven't had direct conversations  
7     with them, but I'd be very surprised if our people  
8     aren't well known to them, in constant communication.

9                   Q     What did the Arctic  
10    Wildlife Range people say to you?

11                  A     Well, they generally  
12    outlined what their proposal was and we discussed  
13    the question of the impact of a pipeline on that  
14    area. Certainly it was indicated to me that they  
15    did not feel it was incompatible with such a range  
16    for a pipeline to be built across it. Not only  
17    pipelines, but other limited areas of activity, in  
18    other words there was no indication at all that  
19    they felt that that refuge should be just kept  
20    completely isolated and that certain and particular  
21    types of activity should be eliminated. They  
22    felt that each one would have to be considered and  
23    specifically in the case of a pipeline advised me  
24    that they could see a pipeline going across that  
25    refuge.

26                  Q     Well, do I understand  
27    from that then that you have selected the prime route  
28    on the understanding that the Arctic Wildlife Range  
29    people would have no objection to it?

30                  A     No, I am talking about



1 the extension of the Arctic Wild -- the Alaska  
2 Arctic Wildlife Range into Canada, and discussions  
3 with the people who have been promoting that  
4 extension as all being very realistic and indicating  
5 to me that they did not think the pipeline incompatible  
6 with that extended Arctic Wildlife refuge.

7 Q But do I understand then  
8 that your prime route was selected on the understanding  
9 that they would have no objection to it?

10 A No, because the prime  
11 route was selected before there were any conversations  
12 with those people to my knowledge.

13 Q I'd also be interested,  
14 Mr. Marshall in knowing if consultations occurred,  
15 whether they occurred before or after the route  
16 had been selected in each case.

17 MR. MARSHALL: I wonder,  
18 Mr. Scott, if you might find it more satisfactory  
19 to put these questions to the environmental panel  
20 rather than have bits and pieces of information  
21 from counsel.

22 MR. SCOTT: Well, MR.  
23 Commissioner, I don't want -- I don't care who  
24 answers the questions as long as Mr. Marshall alerts  
25 the appropriate panel that they are the ones who'll  
26 be expected to answer that kind of question and  
27 advises me.

28 MR. MARSHALL : If you  
29 require it in advance, Mr. Scott, we'd try to accommo-  
30 date you, but the witnesses who can speak to this



V.L. Horte  
Cross-Exam by Scott

1 will be called before the Inquiry and if you can  
2 wait till then I am sure you would get a full and  
3 complete answer from them. I will certainly alert  
4 them.

5 MR. SCOTT:

6 Q Now, Mr. Horte, in  
7 Volume XVI at page 1871, one of the panels, I forget  
8 which at the moment, was giving evidence respecting  
9 the cross delta proposal and the question was  
10 asked whether he was aware the way in which the  
11 cross-delta proposal was advanced, that is, was  
12 it advanced as a practical proposal after it was  
13 found out that it would save \$100 million or  
14 was it advanced after the environmental work in  
15 respect if it had been done or was under way.  
16 Can you give us any assistance on that?

17 A Only in this way.  
18 Certainly it was looked at as a route that would  
19 shorten the total route of the pipeline and in  
20 looking at it then from a -- on a broad environmental  
21 standpoint, the environmental input into that was  
22 to the effect that it was certainly worth studying in that  
23 on a broad basis, well, it had some environmental  
24 concerns. It had other concerns that were eliminated  
25 by going that route as compared to the prime route  
26 and in balance the environmental consideration  
27 was that it should be studied. It shouldn't  
28 be eliminated for environmental reasons.

29 Q Well, Mr. Horte, as I  
30 understood that evidence and I think it was really



1 a statement of your counsel. He said that that  
2 proposal was rejected at first because the conventional  
3 wisdom was that the cross-delta proposal would be  
4 objectionable on environmental grounds.

5 A Well, I think I testified  
6 and I can't tell you what volume it was, but when  
7 the subject was first mentioned to me, it was some-  
8 time in 1973, I wasn't very enamoured with it,  
9 it seemed to me that it would present great  
10 engineering and operational problems that the prime  
11 route did not represent or were not presented by  
12 the prime route.

13 The people who felt that  
14 it was worthy of consideration went further in  
15 that connection and came back to us and said that  
16 no in fact the converse was true, that from an en-  
17 gineering and operational standpoint they thought  
18 it was if anything probably better than the prime  
19 route, and the environmental people without having  
20 the benefit of all the environmental studies advised  
21 that it shouldn't be eliminated for environmental  
22 reasons. And over the ensuing period we have  
23 pursued it further to the point which has been  
24 discussed at this hearing where we certainly come  
25 to the conclusion that from an engineering and  
26 operational standpoint, it is a desirable route and  
27 as you know, we have not completed the environmental  
28 studies with respect to it. Those are being completed  
29 this summer.

30 Q Well, I am concerned



V.L. Horte  
Cross-Exam by Scott

1 about it as a key to the process that was at stake  
2 here. Now, at page 1871, Mr. Genest says this at  
3 line 19:

4 "That's my understanding, sir, that it  
5 [the cross delta proposal or alternative]  
6 was rejected at that time because everyone  
7 had the impression that that particular  
8 part of the delta was very sensitive  
9 from an environmental point of view."

10 Now, do you agree with that, is that why it  
11 was rejected?

12 A It certainly wasn't  
13 the reason that I rejected it in the first instance.  
14 The reason it was rejected in the first instance  
15 at a top management level was strictly that I felt  
16 it was going to be an impossible situation from  
17 an engineering and construction and operational  
18 standpoint. Obviously a poor opinion, but that  
19 was nevertheless the situation.

20 Q Well, do you agree with  
21 Mr. Genest's observation that if not you, at least  
22 everyone else, I'll insert "else" after "everyone",  
23 everyone else had the impression that that particular  
24 part of the delta was very sensitive from an  
25 environmental point of view?

26 A That may be, I can't  
27 be sure. I do know that in the conversations, the  
28 very early conversations with Alex Hemstock, our  
29 environmental director, that I have never heard  
30 him express that view. I have always heard him  
express the view that from an environmental standpoint



V.L. Horte  
Cross-Exam by Scott

1 it should not be eliminated, it required further  
2 study. In other words, he thought it had -- he  
3 could see possibilities for it from an environmental  
4 standpoint, recognizing that some aspects were on  
5 birds in particular, there was -- it was probably  
6 more sensitive to this area, but in other areas  
7 with respect to mammals, etc., it was less sensitive.  
8 So that he had an open mind with respect to it and  
9 felt that it shouldn't be eliminated from that  
10 standpoint, and that's from early on in the  
11 discussions.

12 Now, there may have been  
13 other environmentalists who felt quite different,  
14 but that was the position of Mr. Hemstock, as I  
15 recall it.

16 Q Well, whatever the  
17 conventional wisdom was, that you or Mr. Hemstock  
18 had, I take it that it wasn't seriously considered  
19 until it was thought to be feasible in an engineering  
20 sense.

21 A Well, that's right  
22 it wouldn't make much sense to consider if it wasn't.

23 Q All right, and then when  
24 it was determined that it was feasible in an engin-  
25 eering sense it was determined that a substantial  
26 amount of money could be saved if that route was  
27 possible.

28 A That is true.

29 Q And I take it that  
30 it was at that moment that it became a proposal, when



1 it was found to be engineeringly sound and economically  
2 desirable.

3 A Well, it wasn't a pro-  
4 posal, it was decided it should be studied further  
5 to determine whether it met the other criteria,  
6 that, namely environmental considerations.

7 Q And I take it that the  
8 environmental studies have only recently commenced  
9 and they are not yet finished.

10 A No, that's not true,  
11 environmental studies, on base line studies that  
12 area was involved. We also obtained, as I testified  
13 to earlier, a good deal of environmental information  
14 that had been carried out by the exploration companies  
15 and so we had a certain amount of base data to start  
16 with and really it is a matter of checking out certain  
17 of those studies and obtaining additional information  
18 that has been going on for the past few months.  
19 That's the best that I can describe the environmental  
20 status.

21 Q Well, I take it that  
22 you are not in a position, Arctic Gas isn't in a posi-  
23 tion yet to make any environmental judgment about it.

24 A I don't think a complete  
25 environmental judgment, no.

26 Q Well, any environmental  
27 judgment.

28 A Yes, I think that  
29 generally on a broad basis, our environmentalists  
30 have reached the conclusion that they feel it is



1 a logical route, but it certainly has to be confirmed  
2 by additional studies that are now being undertaken.

3 Q Well, are there any  
4 reports or studies or certificates or anything else  
5 of environmentalists with whom you consult or  
6 who reported to you that indicate that it is an  
7 environmentally adequate way to proceed?  
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V.L. Horte  
Cross-Exam by Scott

1                   A     Let me put it this way,  
2     you know we haven't come this far for no reason, and  
3     I think we have indicated to this Inquiry that that  
4     information is all going to be made available to this  
5     Inquiry, and we will give you our opinion when these  
6     studies are completed.           Now, do you want a pre-  
7     judgment of it? Because I'm not prepared to give you  
8     a pre-judgment.

9                   Q     I don't want a pre-judgment  
10    of it. I simply put it to you, because I find it inter-  
11    esting to compare the stages that the delta proposal  
12    that's gone through coming to finality in a couple of  
13    months perhaps, and the way the other proposals are  
14    said to have been examined. Now do I understand that  
15    in the case of the cross-delta proposal the substantial  
16    environmental judgment is made after the proposal has  
17    been firmed up in every other way, engineering, econom-  
18    ics, and so on.

19                   A     Now, you always put it,  
20    it seems to me, in a very bad light. You know, you  
21    have to approach these things in pieces and there's  
22    really not much point in doing a lot of environmental  
23    study --studies which are very costly, to determine  
24    that a route from an engineering, construction and  
25    operational standpoint was unsound. So it seems to me  
26    you do first things first, particularly if the advice  
27    with respect to the environmental area in the first  
28    instance is that you shouldn't throw it out from an  
29    environmental standpoint. Now I can't make it clearer  
30    than that.



V.L. Horte  
Cross-Exam by Scott

1 Q And then when you have  
2 the economic and the engineering advice, and the envir-  
3 onmental advice, the recommendation to Arctic Gas is  
4 made by the combined group under Dr. Clark.  
5 Is that how it works?

6 A I wouldn't say just Dr.  
7 Clark by any means. It would be a combination of  
8 all of the engineering aspects, not just the geotechn-  
9 ical, the environmental work, and there will be a  
10 thorough examination of all of these aspects and  
11 finally CAGSL is going to have to make that decision.

12 MR. MARSHALL:

13 Mr. Scott, you have  
14 met Mr. Hemstock. You haven't yet met some of the  
15 other staff. When we get to the environmental phase  
16 you'll be meeting more of the consultants and so on,  
17 and some of this will become a little clearer, I think,  
18 the personnel involved and the procedure gone through.

19 MR. SCOTT: It's the process  
20 that I was directing myself to, rather than the eminent  
21 personalities. But I'm grateful for that.

22 Q Mr. Horte, as a concrete  
23 example of the kind of concerns that have been advanced  
24 we asked some questions in Volume 32 at page 4166 of  
25 the construction panel. We were discussing at that page  
26 the process that would be utilized on the ground  
27 during construction in determining whether -- in  
28 determining who would have the ultimate decision as to  
29 the adequacy of the warm water testing process, and  
30 at page 4165 the witness Reid indicated that in deter-  
mining the adequacy of that construction technique



V.L. Horte  
Cross-Exam by Scott

1 on the ground, the fish biologist would have a veto  
2 in determining the adequacy of the process. That  
3 evidence having been given, the witness in the succeeding  
4 pages -- or Mr. Dau, I think, no, Mr. Purcell, in the  
5 succeeding pages indicated, "Well, perhaps the fish  
6 biologists wouldn't have a veto but it would be negotia-  
7 ted"and ultimately the matter was left to be decided  
8 by you. Now the issue that is at stake there is a very  
9 simple  
10 one really, and one that will occur in construction, no  
11 doubt, hundreds of times where there is a conflict  
12 between the engineering decision, the determination of  
13 what is proper from an engineering point of view and  
14 the determination of what is adequate or right from a  
15 biological or environmental point of view. You've  
16 told us that on the ground you are going to have  
17 monitors who will have responsibility in environmental  
18 areas, and who will be scientifically trained. It  
19 isn't yet clear who is going to make decisions of that  
20 type on the ground.

21 A Well, I think I testified  
22 earlier to the effect that I felt most of the situations  
23 that you will -- that you've just described, that we  
24 will be able to be specific with respect to well in  
25 advance of the actual construction, in other words we  
26 will have determined pre-determin<sup>ed</sup>/how in this case when  
27 you're talking about the testing, the method of testing  
28 in a particular area having regard to the streams that  
29 will be crossed and the environmental dangers of such  
30 testing. So that you will pre-determine in all areas  
just as best you can the particular method that will be



V.L. Horte  
Cross-Exam by Scott

1 used, and I would think that that will cover, frankly,  
2 most of the situations. But there will undoubtedly  
3 be many situations where you run into a specific problem  
4 right at the time of construction and I tried to outline,  
5 what I thought the mechanics of that would be, namely  
6 that we will have engineering design people, geotechnical  
7 people, and environmental people all at the site of each  
8 construction spread. There will also be one man, a  
9 CAGSL man, in charge of these people from an overall  
10 standpoint in the field or on that particular spread.  
11 Where difficulties are run into between these various  
12 disciplines, why we would hope that in a great many of  
13 the cases again that by thorough discussion of the  
14 particular problem between the various disciplines that  
15 most of these situations would be resolved right in the  
16 field. However, in the case of a particular environ-  
17 mental situation where the man in the field felt  
18 strongly about the particular situation there would  
19 always be the event -- there would always be the  
20 organizational setup would be such that each of these  
21 various disciplines could always go back to a higher  
22 authority back at the Head Office, or in the field, and  
23 have this further discussed and adjudicated. I suppose  
24 ultimately if the problem were severe enough, it would  
25 get right to someone like myself. I think another  
26 factor that you should keep in mind is that within this  
27 whole process, of course, there will be a monitoring  
28 group so that these decisions won't just simply be  
29 decisions by CAGSL. I'm sure a great deal of discussion  
30 in problem areas will have to take place with the



V.L. Horte  
Cross-Exam by Scott

1 monitoring agency who may well be the one that makes  
2 the ultimate decision.

3 Q Well, let's leave out  
4 the monitoring agency for the moment, because there  
5 isn't one yet, and approach it as a more general  
6 question. Do I understand that you anticipate that  
7 most of these difficulties, but not all, can be  
8 dealt with by some kind of prior regulation, prior rule  
9 and monitoring by your staff?

10 A Yes, I think most  
11 situations can be.

12 Q And you tell us then that  
13 the second difficulty, or the group that are not  
14 accounted for by regulation will be discussed and  
15 resolved, hopefully on the ground.

16 A Yes, I would think the  
17 majority of them would be.

18 Q I have no doubt whatever  
19 that they will be resolved, don't misunderstand me;  
20 what concerns me is the possibility that these conflicts  
21 very likely will be between construction people on the  
22 one hand and environmental people, perhaps hired by  
23 you, on the other, and I want to know who is going to  
24 have authority to stop the work until a decision is  
25 made as to which argument is the right one?

26 A Well, <sup>if</sup> the environmental  
27 man in this example is not satisfied, in other words  
28 with the resolution that may have been decided in the  
29 field, then the protective device or safety device,  
30 if you like, is the fact that he can take it to a higher



V.L. Horte  
Cross-Exam by Scott

1 authority within the organization to have this matter  
2 adjudicated. In other words, he can't, in my example,  
3 have this crammed down his throat by the construction  
4 superintendent.

5 Q All right, can he stop  
6 work?

7 A Yes.

8 Q As long as it may take to  
9 get a decision from Arctic Gas?

10 A Yes.

11 Q And I take it that that  
12 applies to any environmental or socio-economic monitors  
13 that you may have in their areas of discipline.

14 A Yes.

15 Q I take it that in the  
16 normal course that that kind of authority will be in-  
17 serted in the appropriate construction contracts?

18 A Yes, it will.

19 Q Well now, dealing with  
20 one other matter connected with those contracts, is it  
21 the intention of Arctic Gas, as Alyeska did, to negotiate  
22 agreements with contractors relating to wages and  
23 working conditions?  
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1                   A     Oh, we really haven't  
2 progressed that far with it, sir, what we contemplated  
3 at this stage is that there will probably have to  
4 be some sort of agreement or understanding with the  
5 various unions, trade unions, etc., with respect  
6 to wages and working conditions. That, I think,  
7 is where the primary negotiation will take place.

8                   Well, we visualize over  
9 at least a large portion of the pipeline, that is  
10 the northern part of it at least, is that we'll  
11 probably end up with a form of cost plus contract  
12 with the contractors with incentives, if you like  
13 for a good performance and penalties for poor per-  
14 formance. So the wages as such, as I see it are  
15 something that just, under that arrangement really,  
16 flow through to the -- to CAGSL, if you like. It's  
17 not like a turnkey situation where you are turning  
18 the contractor loose on a fixed price for the work.

19                  Q     Well, does that mean  
20 that your inclination at the moment is to have a  
21 hand in fixing wages?

22                  A     Yes, we'll certainly  
23 have a hand in the negotiation of those wages.  
24 We'll be working, I am sure, very closely with  
25 the contractor's association in that regard. We  
26 would very definitely have a hand, I am sure.

27                  Q     Well, now, Mr. Horte,  
28 one of the things that I have read in the press about  
29 the Alaska experience is that as a result of overtime  
30 requirements, employees of contractors and subcontrac-



V.L. Horte  
Cross-Exam by Scott

1       tors are enabled to earn very large sums of money  
2       or what would be considered very large sums of money  
3       for comparable expertise in the southern 48 states and  
4       I take it you are familiar with that?

5                               A       Yes, I have heard that  
6       that is the case.

7                               Q       And I take it that that  
8       is a phenomena frequently associated with pipeline  
9       projects, a lot of overtime?

10                              A       That is quite often the  
11       case, yes, sir.

12                              Q       Yes, and the overtime  
13       naturally results from the desire of the contractor  
14       or the owner to keep up with or to speed up the  
15       work?

16                              A       Yes, sir, the availability  
17       of people, in other words, he's got people who are  
18       well trained and he wants to get the job ahead  
19       through that mechanism rather than take on a bunch  
20       of additional employees.

21                              He finds it to his overall  
22       benefit, if you like, to operate in that manner rather  
23       than any other way.

24                              Q       And I take it that you  
25       would agree with me that these very high wages can  
26       have an unsettling effect and sometimes a disastrous  
27       effect on the economy of the surrounding communities  
28       and perhaps of the whole region.

29                              A       Well, I think that is  
30       -- I know this has been the case to some extent



V.L. Horte  
Cross-exam by Scott

1 at least in connection with the Alyeska project, but  
2 I think a very major factor in that is the location  
3 of people that are working on the project. It involves  
4 where they are hired and very many other factors.  
5 For instance, in the case of the Alyeska project,  
6 most of the people had actually been hired in  
7 Alaska and you had a great influx of people into  
8 Alaska seeking work on the project. I think this  
9 has had a very significant impact on areas, particu-  
10 larly those such as Fairbanks where there are  
11 housing shortages and all sorts of things.

12 What's contemplated, as  
13 you know, in this project, is that people will  
14 actually be housed in construction camps and they  
15 will be flown in and out of those construction  
16 camps to try and eliminate the pressures that would  
17 otherwise incur on the communities in the area.

18 Q No, but I understood  
19 you to say that the Northerners would wherever  
20 possible be hired.

21 A That's right, and  
22 then flown back to their -- when they're not in  
23 the construction camp itself, they'd be flown  
24 back to their point of residence or the nearest  
25 community to their residence.

26 Q So you will be hiring  
27 where possible from Northern communities, and from  
28 the manpower resource that exists in those communities.

29 A Yes.

30 Q Well, in view of that,



1 have you given any thought to controlling the kinds  
2 of money that can be earned so that the manpower  
3 reservoir of the territories isn't exhausted or  
4 unbalanced?

5 A No, no we haven't.

6 Q Do you see it as a problem?

7 A Well, I guess it is bound  
8 to present some problems. Problems in a way in which,  
9 you know, it is difficult to control a problem which  
10 in some ways is very beneficial in that there may  
11 be a large number of people in this region who would  
12 be very happy and content to be able to earn higher  
13 wages than they are now earning or in fact earn  
14 -- have a useful form of employment as compared to  
15 being unemployed, so there are some great benefits,  
16 that are likewise associated with it. I appreciate  
17 that there can be some problems and that people  
18 would be very anxious to avail themselves of this  
19 and I guess, what you are contemplating there may  
20 be a shortage of people for other things and the  
21 spiraling effect on the economy in the North.  
22 I honestly don't know how you can control that,  
23 frankly.

24 Q Well, Mr. Horte, obviously  
25 it is going to be beneficial for some people the  
26 ones who work at the high wages and it may have  
27 unfortunate effects for people who lose their  
28 employees and so on in neighboring communities. I  
29 recognize the advantages pro and con. What I really  
30 want to know is where does Arctic Gas stand on this



1 issue, what is its policy in the face of this  
2 conflict, and if it has a policy, how is it  
3 going to implement it?

4 A Well, the only policy I  
5 can recite to you from the standpoint of the degree  
6 to which we have considered the particular problem  
7 at this point in time is that we would offer oppor-  
8 tunities for northerners on the pipeline, obviously  
9 in so doing you would have to pay those northerners  
10 similarly to what you would have to pay anybody  
11 else to do that particular job.

12 Now, I think that's as  
13 far as our policy has gone. I think beyond that  
14 you get into a situation if you are contemplating  
15 problems resulting from that where there may well  
16 have to be governmental direction, I don't know  
17 how we can solve it.

18 Q Have you given any  
19 thought to restrictions on overtime?

20 A No, we haven't, in  
21 fact we haven't finalized any overtime policies at  
22 this point in time.

23 Q Have you given any thought  
24 to taking the men out of the job for a period  
25 of weeks at intervals? Two weeks in, two weeks out,  
26 that sort of thing?

27 A Yes, that sort of  
28 thing has been contemplated.

29 Q Are you going to do that?

30 A People will be in on, I



V.L. Horte  
Cross-Exam by Scott

1 can't tell you the precise period, but they will be  
2 in for a significant period and then out for a  
3 significant period. They will stay on the job seven  
4 days a week while they are there and then they  
5 will be flown out for a rest period, if you like,  
6 before they are moved back in.

7 Q Have you given any  
8 thought to utilizing that policy to equalize earnings?

9 A No, and I don't think  
10 that is practical. I think you have to face the  
11 fact that, you know, the effect of the pipeline  
12 will be, I am sure, during the construction period  
13 and the operational period that wages will be  
14 increased in the north. I just think that follows.  
15 Otherwise we are not going to get the pipeline  
16 built.

17 Q Have you formulated  
18 any policy on the administration of the camps,  
19 are you going to permit women or liquor or guns in  
20 them?

21 A Well, we don't intend  
22 to permit guns in the camp. We propose to have dry  
23 camps. With respect to women, I can't give you an  
24 answer to that.

25 Q That's in the policy  
26 stage at the moment?

27 A Yes.

28 Q What is your reaction  
29 to the fact that Alyeska made the same decision and  
30 was forced by trade unions to alter the policy?



V..L. Horte  
Cross-Exam by Scott

1 MR. MARSHALL: Sir, I --

2 A I guess we'll meet  
3 that when we run into it. We haven't run into that  
4 yet.

5 MR. SCOTT:

6 Q No, you haven't, have  
7 you any view about it?

8 MR. MARSHALL: We may  
9 get into all of these things in phase 4. I am  
10 somewhat surprised that the Commission Counsel  
11 is taking us out of the --

12 MR. SCOTT: It is construction.

13 MR. MARSHALL: Construction.  
14 I see.

15 MR. SCOTT: Phase four  
16 deals with what happens outside the camps, when  
17 they get out.

18 MR. MARSHALL: There has  
19 been a new preliminary ruling, has there?

20 TH E COMMISSIONER: Not-  
21 withstanding these facile responses I think there is  
22 something in what you are saying, Mr. Marshall.

23 Before we leave this, and  
24 I am sure that Mr. Scott intends to leave it in a  
25 moment. You said that you contemplate the workers  
26 in the camps on your pipeline, Mr. Horte, would  
27 work seven days a week. How many hours a day?

28 A I think the present  
29 plan is ten hours a day, but this is being looked  
30 at again.



1 THE COMMISSIONER: So you  
2 would have something -- you'd have a conventional  
3 40 hour week straight time and then you would  
4 have about thirty hours of overtime each week?

5 A Yes, on that basis.  
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V.L. Horte  
Cross-Exam by Scott

1 Q Do you see  
2 any reason why the total remuneration that boys on your  
3 pipeline -- I'm talking about construction -- would  
4 receive would not be essentially at the same level as  
5 those being paid on the Alyeska project for equivalent  
6 work?

7 A I don't know, but they  
8 are certainly going to be high, I'm sure of that. We're  
9 dealing with International Unions and I would expect  
10 they will be similar.

11 MR. SCOTT: Q Mr. Horte, in  
12 the geotechnical panel Dr. Hardy expressed his own  
13 personal preference for overhead crossings at some  
14 rivers, but said he'd not been able to persuade any  
15 pipeliner to accept his preference. Assuming that the  
16 cost is the same, have you any theoretical or other  
17 objection to overhead crossings in cases where the  
18 interests of the environment may be safeguarded in  
19 that fashion?

20 A No, I don't think we  
21 have any preconceived notions, but I do understand that  
22 notwithstanding what Dr. Hardy said, I think the  
23 engineering people in N.E.S. and the other geotechnical  
24 people disagree with him.

25 Q But I take it that you,  
26 as a pipeliner, you have no other objection to that?

27 A I think any time that  
28 it's possible to bury pipeline, I think that's preferable  
29 than having it above-ground, including river crossings.  
30 There's always -- I think a pipeline is <sup>just</sup> better protected



V.L. Horte  
Cross-Exam by Scott

1 under-ground but that depends upon the particular  
2 circumstance, and that's why, as I say, we have an open  
3 mind on it. But if all other things were equal, I think  
4 we'd want to bury it.

5 Q Would you also have an  
6 open mind on the question of a combined highway pipeline  
7 crossing in an appropriate location where a corridor  
8 concept indicated that that might be desirable?

9 A The pipeline should go  
10 overhead?

11 Q Under a bridge, or over  
12 a bridge, I don't know how you put them.

13 A Yes, I think it's still  
14 preferable to have a pipeline under-ground.

15 THE COMMISSIONER: Under the  
16 river bed.

17 A Yes.

18 MR. SCOTT: Even if the bridge  
19 is going to be there?

20 A Yes.

21 Q Why?

22 A Well, I think you, you  
23 know, you're dealing with a structure then which is  
24 something that can be sabotaged, it can have <sup>straight</sup> problems  
25 with the structure itself, of ice in rivers and what  
26 have you. I just think historically, and I think if  
27 you talk to any pipeliner they basically prefer, if  
28 all other things are equal, to bury the pipeline under-  
29 neath the river bed. You've got greater design problems  
30 above-ground, you've got greater temperature variations,



V.L. Horte  
Cross-Exam by Scott

1 this type of thing that has to be taken into account.

2 MR. SCOTT: Excuse me one  
3 moment, Mr. Commissioner.

4 THE COMMISSIONER: Mr. Scott,  
5 would you like us to adjourn for coffee?

6 MR. SCOTT: I'd like to, I  
7 could perhaps find this.

8 THE COMMISSIONER: During coffee.

9 MR. SCOTT: You can have  
10 coffee, if you like.

11 THE COMMISSIONER: Yes, well I  
12 certainly can have it. Well, we'll adjourn a few minutes  
13 for coffee then.

14 (PROCEEDINGS ADJOURNED A FEW MINUTES)

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V.L. Horte  
Cross-Exam by Scott

1 (PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

2 MR. MARSHALL: Mr. Scott,  
3 before you begin your cross-examination again, I  
4 think Mr. Horte has recollected that he gave an  
5 incomplete answer to one of your questions. He  
6 would just like to correct that.

7 MR. SCOTT: Does that  
8 help, Mr. Horte -- let him tell you if the --

9 A I think, Mr. Scott,  
10 when you asking me the amount of effort or money  
11 that had been spent in various types of studies,  
12 that is the environmental studies, the geotechnical  
13 studies, etc., and the sociological studies, I  
14 mentioned that in the straight sociological area  
15 I estimated that the money spent in those studies  
16 was in the order of a million and a half. That  
17 did not include the training program, northern native  
18 training program that we participate in and I  
19 don't have a figure with me. We will obtain that  
20 figure and we will read it into the record.

21 Q Mr. Blair will probably  
22 tell us about that within a few hours.

23 A He might be able to.

24 Q When you were telling  
25 me about the interaction of Mr. Hemstock and Dr.  
26 Clark's groups, I should have followed it along and  
27 asked you to refer to your organization chart for  
28 the construction phase which is already an exhibit.  
29 I don't know the number. And I wonder if on that  
30 chart you could show us where Mr. Hemstock is, or



V.L. Horte  
Cross-Exam by Scott

1 where --

2 A I guess I should find  
3 out if we are talking from the same chart, sir,  
4 could I get a copy of that? I have a chart here,  
5 I am not sure it is the --

6 MR. SCOTT: On that chart,  
7 Mr. Horte, you show two lines of command, operation  
8 and construction, is that correct?

9 A Yes.

10 Q Where are the environ-  
11 mental <sup>people</sup> found on that chart?

12 A You see under the heading  
13 vice president of operations, and the second heading  
14 below that, director of environmental protection and  
15 community relations. That's the function carried  
16 out by Mr. Hemstock.

17 Q And is that where he  
18 will be or where he and his group will be during  
19 the construction phase?

20 A I am not sure of that,  
21 sir. That's the organization as it now stands, and  
22 it likely will remain that way.

23 Q Well, how do those  
24 people fit into the construction chain of command?

25 A Well, in the -- they  
26 will have people as I mentioned earlier out there  
27 on the construction job. On each construction  
28 spread environmental people will be there and I  
29 think I have described as fully as I can how they  
30 will function in the field and then if they have



1 problems they will go back to their supervisor  
2 or the director of environmental protection back  
3 in the head office for any areas that they aren't  
4 able to resolve in the field.

5 Q The reason that I am  
6 concerned, Mr. Horte, is that on this chart, it  
7 looks as if environment protection is regarded as  
8 primarily an operations function. It doesn't  
9 have an arrow that leads to construction decision  
10 making.

11 A Well, we wanted very  
12 definitely to have environmental separate from  
13 construction for the reasons that we have been  
14 discussing here today. We didn't want the environmental  
15 aspect of this project to in any be under the direction  
16 of the construction people. I wanted them to be  
17 independent of the construction people. That's  
18 the reason and they never will be under the  
19 construction head.

20 Q And that means that  
21 any dispute between Mr. Hemstock and the vice  
22 president of construction can only be settled by  
23 the president?

24 A Unless Mr. Hemstock  
25 can settle them with the vice president of engineering  
26 and construction, yes, they'll have to go a step  
27 further.

28 Q Well, does Mr. Hemstock  
29 under this plan have access to the vice president  
30 of engineering and construction or does he have



V.L. Horte  
Cross-Exam by Scott

1 to follow this chain of command?

2 A Well he certainly has  
3 access. Everybody is in communication , one  
4 with the other.

5 Q Well, now, just  
6 a question or two about wharves and airstrips. In  
7 the evidence you have indicated that some wharves  
8 will have to be built and some upgraded and you've  
9 indicated that you are going to consult with the  
10 communities about the location of these wharves.  
11 When do you propose to do that?

12 A Well, I think that we  
13 are in the process of doing that, sir, with the  
14 community hearings. We did have sociological input  
15 in the first instance into those locations when  
16 they were originally picked and I am certain that  
17 throughout the course of this hearing there will be  
18 a great many inputs with respect to the location  
19 of these facilities and certain of them may well  
20 have to be shifted and I indicated in my earlier  
21 testimony that we're prepared to look at all these  
22 situations and look at them in total and modify  
23 those particular facilities if they are such that  
24 they are deemed to be improper, if you like or  
25 from a sociological standpoint.

26 Q Well, your application  
27 section 13A which indicates that you are going to  
28 have consultation as to the ultimate location of  
29 these wharves with local residents and community  
30 groups, was I presume, drafted before you even knew



V.L. Horte  
Cross-Exam by Scott

1 there were going to be community hearings.

2 Apart from community hearings, what plans do you have  
3 to consult with the communities and are those  
4 consultations already underway?

5 A They are not underway  
6 at the present time. There were consultations as  
7 I understand it, initially when the plan was prepared.  
8 And I am sure -- I don't know whether further  
9 consultations are something that would be effective  
10 or not under the present circumstances. I think  
11 that the community hearings are certainly giving  
12 about as good a basis of input from that standpoint  
13 as one could receive. I don't think we could improve  
14 upon that. We are certainly getting the feeling  
15 from the local residents at those hearings.

16 Q I take it that your  
17 previous consultations, as you have described them  
18 were in fact conducted by the consultants who have  
19 made reports for you?

20 A In some cases and in  
21 some cases some of our own people who have visited  
22 these communities certainly have had input in  
23 that area.

24 Q Have you developed any  
25 policy on the use and ownership and maintenance  
26 of these wharves either during construction or  
27 following construction?

28 A Yes, and I think I  
29 have already testified to that, sir.

30 Q I am sorry if you have,



V.L. Horte  
Cross-Exam by Scott

1 I have overlooked it. Can you summarize the policy  
2 that you have developed?

3 A Well, the policy will  
4 be that primarily during the construction period,  
5 obviously these wharves will be utilized for that  
6 purpose. It doesn't mean they can't be otherwise  
7 used as well, but that will be the primary function  
8 during that period.

9 Upon completion of construction  
10 I would expect that many of the wharves will be maintained  
11 for operational purposes or possibly future expansion  
12 of the pipeline system. Again I would expect that  
13 those wharves that are kept in being would be utilized  
14 locally by many others as well as the pipeline and we  
15 would have no objection to that. Those facilities  
16 that would be abandoned I think I indicated that  
17 would otherwise be abandoned, I think that we indicated  
18 that we would be willing to work out arrangements  
19 for those facilities to be handed over or maintained,  
20 if you like, by others if they were felt to serve  
21 a useful purpose.

22 Q I take it that if they  
23 were going to be abandoned you will either maintain  
24 them or take them away?

25 A Well, I think that  
26 we wouldn't do anything about abandoning them without  
27 consultation with the appropriate authorities to  
28 see whether or not they could serve a useful  
29 purpose. It would make little sense for us to just  
30 tear up something that was already there unless



V.L. Horte  
Cross-Exam by Scott

1 everybody agreed that it should not be there for  
2 some reason.

3 Q Now, on the subject of  
4 airports I understand that you intend to upgrade  
5 three airstrips at Fort Norman, Wrigley and Fort Good  
6 Hope and build eight new LSTOL strips and five  
7 major strips. What is the policy with respect to  
8 the use, first of all of the -- the use and maintenance  
9 of the existing strips which are community or government  
10 owned?

11 A Well, I think an arrange-  
12 ment there would be worked out to maintain those  
13 strips and to the extent that we were a major  
14 utilizer we would be maintaining our fair share or  
15 putting up our fair share of any such costs. There  
16 will be other facilities that are primarily used  
17 by us and I am sure that we will maintain those  
18 completely ourselves, and they will likewise, I am  
19 sure, be accessible to others for emergency purposes.  
20 That's what they are basically intended for, operational  
21 movement and I wouldn't think they're be used very  
22 much on a commercial basis, but instead on an emergency  
23 basis.



V.L. Horte  
Cross-Exam by Scott

1 Q In terms of upgrading the  
2 strips that exist, I take it you intend to bear the  
3 full cost of that?

4 A I don't know, that's some-  
5 thing that will have to be discussed with the appropriate  
6 authorities that now have those strips. We will be  
7 negotiating in that connection.

8 Q Do you receive any finan-  
9 cial assistance from the Federal Government for up-  
10 grading?

11 A I don't know that answer.

12 Q What is the policy going  
13 to be with respect to community-owned strips, if there  
14 are any? Are you going to upgrade them at your cost,  
15 or do you regard that as something to be negotiated?

16 A The community-owned strips,  
17 which are those?

18 Q Well, I'm not sure which  
19 of the three are community-owned, but I understand at  
20 least one of them is.

21 A Strictly community-owned,  
22 government's not involved, I would think we would  
23 upgrade those at our cost.

24 Q Well now, what is the  
25 policy going to be with respect to the new strips that  
26 you build?

27 MR. MARSHALL: Mr. Scott,  
28 perhaps just before leaving that, Mr. Scott might let  
29 us know which ones you have in mind when you're talking  
30 about community-owned strips.



V.L. Horte  
Cross-Exam by Scott

1 MR. SCOTT: I understand that  
2 there are three existing, and I understand that one  
3 of them is community-owned. I'll have to find out which  
4 one.

5 MR. MARSHALL; Thanks.

6 MR. SCOTT: Now, with respect  
7 to the new facilities which you intend to create, what  
8 is your policy relating to the use of those strips?

9 A Well, if those strips  
10 are to be used primarily by us, then our policy would  
11 be to own them and construct those facilities.

12 Q And what is your policy  
13 with respect to the disposition of those strips going  
14 to be?

15 A You mean once the pipeline  
16 is constructed? Well, they'll continue to be useful  
17 for operational purposes or emergency purposes, so  
18 they'll be kept, they'll be maintained.

19 Q In the event that they  
20 are near communities, have you given any thought to  
21 them being used by the communities?

22 A Yes, in principle we would  
23 see no objection to that. Obviously there has to be  
24 a good deal of discussion with the Department of  
25 Transport with respect to what sort of facilities  
26 would have to be there and how they would be maintained  
27 if they were being used for other purposes whether  
28 that would be different from the situation that they  
29 were just used by ourselves or not, I don't know.



V.L. Horte  
Cross-Exam by Scott

1 MR. SCOTT: I can tell Mr.  
2 Marshall that the strip at Fort Good Hope , I am  
3 instructed, is community-owned.

4 Q Now, Mr. Horte, can you  
5 give me any rough estimate as to the additional cost  
6 to Arctic Gas in the event that it is necessary to  
7 have an additional construction season?

8 A Well no, I can't give you  
9 a very precise estimate. One of the major factors that  
10 occurs to me is the interest on the investment that's  
11 been outstanding and spent on the facilities that are  
12 already constructed that are therefore not being uti-  
13 lized and it would depend upon -- well, I guess you'd  
14 have to say that the effect would be that the final  
15 year it would be the interest on the money you had  
16 outstanding theretofore, which could be as high for a  
17 year as I suppose close to completion of the pipeline,  
18 it would depend upon just what you were completing in  
19 that extra season, but let's say that you already have  
20 \$5 million worth of facilities installed, and construc-  
21 tion at that point in time and you had to take an  
22 additional year to complete the facility, you'd have  
23 the interest associated with \$5 billion worth of invest-  
24 ment which, if your interest was at 10%, would be  
25 \$500 million.

26 Q I take it that you'd also  
27 have any additional inflationary costs that hadn't been  
28 predicted.

29 A Yes.

30 Q And you would have the



V.L. Horte  
Cross-Exam by Scott

1 loss of revenues for one season.

2 A Yes, you'd certainly have  
3 the loss of revenues, for that season.

4 THE COMMISSIONER: When you  
5 speak of losing one construction season, right now  
6 the program is to lay pipe in the winter of '78 and  
7 '79 and '80. Those are the three principal construction  
8 seasons, as I understand this project. If you lost  
9 the '78 and '79 season in the Mackenzie Valley, that  
10 would mean so to speak the postponement of completion  
11 for one season?

12 A Yes sir, if it were a  
13 postponement, sir, the point I made about interest  
14 during construction wouldn't be so.

15 Q No, no, I don't mean  
16 postponement, forgive me, I mean adding on another  
17 year.

18 A To the total construction  
19 period?

20 Q Yes.

21 A Say extending it from  
22 a three-year program to a four-year program? Then I  
23 think what I said would apply.

24 Q Yes. Three years of pipe-  
25 laying that we're talking about, rather than the first  
26 year, for instance, <sup>the</sup> first year involves surveying and  
27 a lot of other things, but you don't get the pipeline  
28 till '78 as I understand it.

29 A Yes, I'm really talking  
30 about the physical construction period.



V.L. Horte  
Cross-Exam by Scott

1 Q The three seasons?

2 A Yes.

3 Q Now, if you lose '78 or  
4 '79, that is the two -- one of the two pipe-laying  
5 seasons in the Mackenzie Valley, if you spent five  
6 billion and you're paying interest on five billion  
7 for an extra year, we all follow you there. If you  
8 get the two seasons -- if you get the work completed  
9 in the Mackenzie Valley and the delay is in the '80  
10 season, to Alaska, that's a different kettle of fish,  
11 isn't it?

12 A Yes, it is because at  
13 least you'd have part of the facility in operation.  
14 You'd be getting some income from the movement of  
15 that volume of gas. You could think of a multitude  
16 of different circumstances, each of which would, you  
17 know, you could calculate them, what the cost would  
18 be would depend upon, you know, how far you were  
19 completed and how much you had left in that additional  
20 season, whether you did get to the delta first after  
21 two years, or else just what the particular circumstances  
22 were. I was assuming that in this that getting to the  
23 delta and to Prudhoe Bay, in the case of the delta it  
24 took three years instead of two, and to Prudhoe Bay  
25 four years instead of three, and under that circumstance  
26 you really would have a very large investment in there  
27 after the third year, in which you'd have a high rate  
28 of interest affecting the overall cost of the project,  
29 as well as the escalation factors, if inflation stays  
30 with us that that brings about.



V.L. Horte  
Cross-Exam by Scott

1 MR. SCOTT: But I take it if  
2 you got to delta, but there was an extension of your  
3 timetable to get to Alaska, in view of your observation  
4 that it isn't now economic to go to the delta alone  
5 you would still be losing substantial amounts of money  
6 by virtue of that extension.

7 A Yes, you would.

8 MR. SCOTT: Those are all the  
9 questions I have.

10 THE COMMISSIONER: I have one  
11 question, Mr. Horte. Alyeska -- there was a witness  
12 who gave evidence at Whitehorse last week, Magistrate  
13 Sprecker, I think his name was, he's not an official  
14 of Alyeska, but he told us that Alyeska was a year  
15 behind its schedule in construction now. Have you  
16 any information as to that?

17 A No, I really don't. I  
18 had understood that they were somewhat behind, but that  
19 they had plans which they thought would catch up so  
20 that they were still contemplating a completion in 1977.  
21 Now the fact that they are having to do some things to  
22 bring that about indicates that, you know, they have  
23 had some problems. So I suppose it makes it, you  
24 know, there's some degree of risk, as to whether they  
25 will or not, but the latest word that I've had, sir,  
26 which hasn't been for a month or two now, is that they  
27 are still very much -- were still very much looking at  
28 a '77 completion.

29 Q And oil is supposed to  
start flowing, as I understand it, about September '77.



V.L. Horte  
Cross-Exam by Commissioner

I think I've --

A Yes, that was my original understanding.

Q Well now, how soon after that -- let me put it this way -- once they start pumping oil out, is there any minimum period of years after that in which they must begin to pump gas out from an economic or an engineering point of view?

A Not to my knowledge, sir. What you could do is at least for quite a number of years, I would think, is that you could continue to re-inject the solution gas produced with the oil production back into the gas cap. Now, there would probably come a point down the road in time where the re-injection of that gas into the gas cap might bring about an earlier break-through of the gas into the oil zone, but this would be some years down the road, and there is a very thick oil column there, so I wouldn't contemplate much of a problem in that regard for quite some time.

Q So there's no urgency about extracting gas simply because the time is reached when they are beginning to extract oil?

A Well, I think from a physical standpoint I think that's right. From an economic standpoint, having regard to the cost of re-injection, the fact that they would like to obtain revenues for the sale of that gas, and of course an even larger factor, that being that the market in the U.S. is very short of natural gas.

Q Those are --



V.L. Horte  
Cross-Exam by Commissioner

1 A These are other factors.

2 Q Yes, those are factors we  
3 all have heard about those things, but --

4 A Yes

5 Q -- they're not faced with  
6 a choice of burning the gas or shipping it out, they can  
7 re-inject it for a period of some years after '77, that's  
8 really what I'm trying to get at .

9 A Yes, I am sure they can.

10 THE COMMISSIONER: Well, those  
11 are all the questions I have. Any re-examination, Mr.  
12 Marshall?

13 MR. MARSHALL: Sir, I have no  
14 re-examination.

15 THE COMMISSIONER: Well, thank  
16 you, Mr. Horte.

17 A Thank you, sir.

18 (WITNESS ASIDE)

19 MR. SCOTT: Mr. Commissioner,  
20 just before we begin with the next panel, could I  
21 suggest that we should sit until six o'clock tonight  
22 and then sit from 8 to 10 this evening?

23 THE COMMISSIONER: All right,  
24 any -- is that something with which counsel generally  
25 agree, or would -- that was our procedure, I think,  
26 before we started our travels around the Mackenzie  
27 Valley in June. If any counsel is unhappy about that,  
28 we won't sit tonight. That concerns you, Mr. Marshall,  
29 or your colleagues. Don't hesitate to say so.

30 MR. MARSHALL: We might see



how we stand at six, sir.

THE COMMISSIONER: All right.

MR. GIBBS: Mr. Commissioner,  
to open the Foothills case, perhaps I could mark all  
the application materials as exhibits.

THE COMMISSIONER: All right.



1 MR. GIBBS: The first one,  
2 sir, is a volume entitled "Application of Foothills  
3 pipe Lines Ltd. for a Certificate of Public Convenience  
4 and Necessity." This was filed with the National  
5 Energy Board but it is part of the material which  
6 have been filed and which we believe should be of  
7 record before this Inquiry.

8 I think the next exhibit number is 192.

9 (VOLUME ENTITLED "APPLICATION OF FOOTHILLS  
10 PIPE LINES LTD. FOR A CERTIFICATE OF PUBLIC CONVENIENCE  
11 AND NECESSITY" MARKED EXHIBIT 192.)

12 MR. GIBBS: The next one, sir,  
13 is a volume entitled "Application of Foothills Pipe  
14 Lines Ltd. for a Grant of Interest in Territorial  
15 Lands."

16 (VOLUME ENTITLED "APPLICATION OF FOOTHILLS PIPE LINES  
17 LTD. FOR A GRANT OF INTEREST IN TERRITORIAL LANDS  
18 MARKED EXHIBIT 193.)

19 MR. GIBBS: The next one,  
20 a volume entitled "Part I: Supply and Requirements"  
21 consisting of three separate sections.

22 (VOLUME ENTITLED: "PART I: SUPPLY AND REQUIREMENTS"  
23 MARKED EXHIBIT 194.)

24 MR. GIBBS: Then sir, a  
25 volume entitled "Part III: Facilities", also  
26 consisting of three sections, Sections A, B and C.  
27 (VOLUME ENTITLED "PART III: FACILITIES" CONSISTING OF  
28 SECTIONS A, B AND C MARKED EXHIBIT 195.)

29 MR. GIBBS: Another volume also  
30 entitled "Part III: Facilities", but this one consisting



1 of sections D,,E, F and G.

2 (VOLUME ENTITLED "PART III: FACILITIES", SECTIONS  
3 D,E,F AND G, MARKED EXHIBIT 196.)

4 MR. GIBBS: The next volume,  
5 sir, is "Part IV: Financial" consisting of sections  
6 A, B, and C.

7 (VOLUME ENTITLED "PART IV: FINANCIAL" SECTIONS A, B  
8 AND C MARKED EXHIBIT 197.)

9 MR. GIBBS: Then, sir, a  
10 volume entitled "Part V: Public Interest", consisting  
11 of sections A and B.

12 (VOLUME ENTITLED "PART V: PUBLIC INTEREST" SECTIONS  
13 A AND B MARKED EXHIBIT 198.)

14 MR. GIBBS: A Volume entitled  
15 "Part V: Public Interest" consisting of sections  
16 C, the Socioeconomic statement."

17 (VOLUME ENTITLED "PART V: PUBLIC INTEREST" SECTION  
18 C MARKED EXHIBIT 199.)

19 MR. GIBBS: A volume entitled  
20 "Part V: Public Interest" section D, Environmental  
21 statement.

22 (VOLUME ENTITLED "PART V: PUBLIC INTEREST" SECTION D  
23 MARKED EXHIBIT 200.)

24 MR. GIBBS: A Volume entitled  
25 "Part VI: Addendum" Section A, materials specifications.  
26 (VOLUME ENTITLED: "PART VI: ADDENDUM, SECTION A  
27 MARKED EXHIBIT 201.)

28 MR. GIBBS: A large volume,  
29 sir, entitled "Alignment Sheets."  
30 (VOLUME ENTITLED "ALIGNMENT SHEETS MARKED EXHIBIT 202)



1 MR. GIBBS: And a small one  
2 entitled "Environmental Maps."  
3 (VOLUME ENTITLED "ENVIRONMENTAL MAPS" MARKED EXHIBIT  
4 203.)

5 MR. GIBBS: Now, sir, also  
6 filed in Ottawa with the National Energy Board and  
7 which in my submission should also be part of the  
8 record here, is an application by Westcoast Transmission  
9 Company Ltd., for certain facilities in the Northwest  
10 Territories and with their plan of expansion in  
11 British Columbia and with your permission I would  
12 mark those volumes also.

13 MR. GOLDE: Is my friend  
14 empowered to tender those as exhibits.

15 MR. GIBBS: Well, sir, I  
16 am not anxious to if the Inquiry doesn't want them.  
17 It seems to me in order for the whole project to  
18 be before you, all of these things should be filed.

19 MR. GOLDE: I am  
20 not objecting.

21 MR. GIBBS: If he is insisting  
22 that someone from Westcoast appears to do so, why  
23 we can do that, but they are already a matter of  
24 public record.

25 MR. GOLDE: Excuse me, I  
26 am not objecting to them coming forward and tendering  
27 those exhibits, but I wish now to be informed  
28 whether Foothills witness will be cross-examined with  
29 respect to those exhibits.

30 MR. GIBBS: Oh, no, sir, those



1 are Westcoast exhibits.

2 MR. GOLDE: Well then,  
3 I think they should be put forward by somebody  
4 who can answer questions with respect to them.

5 MR. GIBBS: Well, Mr.  
6 Commissioner, really, it is, I think, an unnecessary  
7 complication. These volumes were requested from  
8 Westcoast for the express purpose of filing before  
9 this Inquiry so the record would be complete.  
10 Now, I don't know that it matters who calls the  
11 witness to testify to them at this stage.

12 THE COMMISSIONER: Can you  
13 assist us, Mr. Scott?

14 MR. SCOTT: Well, Mr.  
15 Commissioner, as they are a matter of public record  
16 surely they should be filed. If Mr. Gibbs is  
17 not prepared to call a witness, it surely lies within  
18 the power of anybody else to do so and isn't that  
19 the short way around. If Arctic Gas wants to cross-  
20 examine and they tell me who they want to cross-  
21 examine, I might consider subpoenaing that witness.  
22 to give evidence for the purpose of assuring that  
23 all the relevant questions are asked and answered.

24 THE COMMISSIONER: Do you  
25 want to say anything further, Mr. Goldie?

26 MR. GOLDE: I have nothing  
27 to add, Mr. Chairman, I just thought, I wanted  
28 it to be known if Mr. Gibbs or Foothills is empowered  
29 to file these exhibits, that is how it started out.

30 MR. GIBBS: Certainly we are



1 empowered to tender them.

2 THE COMMISSIONER: Well,  
3 they are in your possession and you are offering  
4 them to the Inquiry and I am going to order that the  
5 document be marked as an exhibit.

6 MR. GIBBS: The first  
7 volume, sir, is volume I entitled "Application."  
8 These are Westcoast Transmission Company Ltd. docu-  
9 ments.

10 (VOLUME I ENTITLED "APPLICATION", WEST COAST TRANSMIS-  
11 SION COMPANY LTD. MARKED EXHIBIT 204.)

12 MR. GIBBS: The next, sir,  
13 is volume II, "Gas Supply, Gas Sales, Gas Balance"  
14 (VOLUME II ENTITLED "GAS SUPPLY, GAS SALES, GAS  
15 BALANCE" MARKED EXHIBIT 205.)

16 MR. GIBBS: Volume IIA,  
17 Sir, "Gas Supply."  
18 (VOLUME II A, ENTITLED "GAS SUPPLY" MARKED EXHIBIT  
19 206)

20 MR. GIBBS: Volume III  
21 entitled "Engineering."  
22 (VOLUME III ENTITLED "ENGINEERING" MARKED EXHIBIT  
23 207)

24 MR. GIBBS: Volume IV  
25 entitled "Financial"  
26 (VOLUME IV ENTITLED "FINANCIAL" MARKED EXHIBIT 208)

27 MR. GIBBS: Volume V entitled  
28 "Environmental Impact Assessment."  
29 (VOLUME V ENTITLED "ENVIRONMENTAL IMPACT ASSESSMENT"  
30 MARKED EXHIBIT 209)



1 MR. GIBBS: Then sir, there  
2 will also, if the Certificate of Public Convenience  
3 and Necessity is granted, be constructed partly  
4 in the Northwest Territories and partly in  
5 Northern Alberta a connecting link to the Alberta Gas  
6 Trunk Line Company existing system. Applications  
7 for that connection have been filed by a newly  
8 incorporated federal company entitled Alberta Gas  
9 Trunk Line (Canada) Ltd.

10 I have that material and  
11 would propose to tender those volumes now as  
12 exhibits.

13 The series are applications  
14 filed by the Alberta Gas Trunk Line (Canada) Ltd.  
15 The first volume, sir, is entitled, "Application."  
16 (VOLUME ENTITLED "APPLICATION", ALBERTA GAS TRUNK  
17 LINE (CANADA) LIMITED MARKED EXHIBIT 210)

18 MR. GIBBS: The second  
19 one is entitled "Part I: Supply and Requirements",  
20 "Part II: Gas Supply and Sales Contracts", "Part III:  
21 Facilities."  
22 (PART I, PART II AND PART III MARKED EXHIBIT 211)

23 MR. GIBBS: The next volume,  
24 sir, is "Part IV: Financial".  
25 (PART IV: FINANCIAL, MARKED EXHIBIT 212.)

26 MR. GIBBS: Then Part V:  
27 Public Interest.  
28 (PART V: PUBLIC INTEREST, MARKED EXHIBIT 213)

29 MR. GIBBS: And the last  
30 volume, folder A, Alignment Sheets.



1 (FOLDER A, ALIGNMENT SHEETS MARKED EXHIBIT 214)

2 MR. GIBBS: Mr. Commissioner,  
3 in addition to all that material, the Alberta Gas  
4 Trunk Line Company Limited filed in Ottawa a volume  
5 showing how they would propose to expand their  
6 existing system in step with the build up of volumes  
7 from the Mackenzie delta and I propose to tender  
8 that filing now to be marked.

9 These volumes, sir, are volumes  
10 of the Alberta Gas Trunk Line Company Ltd., the  
11 first one is entitled, "Submission".

12 (VOLUME ENTITLED "SUBMISSION:, ALBERTA GAS TRUNK LINE  
13 COMPANY LTD. MARKED EXHIBIT 215)

14 MR. GIBBS: The second  
15 volume entitled "Preface: Part I Supply and  
16 Requirements, Part II: Gas Supply and Field Contracts,  
17 Part III: Facilities."

18 ( PREFACE, PART I, PART II, PART III, MARKED EXHIBIT  
19 216)

20 MR. GIBBS: And the  
21 third volume is entitled "Part IV: Financial"  
22 and "Part V: Public Interest".

23 (PART IV AND PART V MARKED EXHIBIT 217)

24 MR. GIBBS: Those, sir,  
25 are all of the exhibits that I have to mark at  
26 this time.

27 MR. GOLDE: Is there  
28 any further documents withdrawing all these applications  
29 from the National Energy Board?

30 MR. GIBBS: Intended to be



1 facetious no doubt.

2 MR. GOLDE: Well, I read in  
3 the newspaper that you were going to do so.

4 MR. GIBBS: Well, I don't  
5 believe everything that is in the newspapers,  
6 Mr. Goldie, and I presume you don't either.

7 Mr. Commissioner, next  
8 door to this room Alberta Gas Trunk has provided  
9 what we felt would be useful and informative  
10 display. The display consists of a working model  
11 of an actual compressor station on the Alberta  
12 Gas Trunk system, a working model of a meter  
13 station, a model of a road crossing and of a  
14 river crossing. Those are all set up next door.  
15 They will be manned from now as long as there is  
16 interest in seeing them. We invite anyone to go  
17 in to have a look and to ask for an explanation of  
18 how they work.

19 MR. SCOTT: The only thing  
20 that remains, Mr. Commissioner, Mr. Gibbs told  
21 me about this and we made the reservations for  
22 the room. We do want to negotiate with them the rental  
23 because it is like a sales counter and I am not sure  
24 to what extent the Commission ought to pay for the  
25 space. We can discuss that later.

26 MR. GIBBS: Well, they are  
27 not for sale.

28 Now, sir, before calling  
29 my first panel which consists of Mr. Blair, he will be  
30 referring to two or three slides and perhaps we could



1 have a moments interruption to bring in the projector  
2 and screen before Mr. Blair takes the stand.

3 THE COMMISSIONER: All right,  
4 we will stop for five minutes or so and stretch  
5 our legs.

6 (PROCEEDINGS ADJOURNED FOR FIVE MINUTES)  
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S. R. Blair  
In Chief

(PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

MR. GIBBS: Mr. Commissioner, the first witness for Foothills is Mr. Blair, if he could come up now and be sworn?

THE COMMISSIONER: He has been sworn, in your absence but nevertheless --

S.R. BLAIR, resumed:

DIRECT EXAMINATION BY MR. GIBBS:

Q Mr. Blair, you were sworn at another time and place of this Inquiry?

A That's right.

Q You are the president and chief executive officer of Foothills Pipe Lines Ltd.

A Yes.

Q And you are also a director?

A Yes.

Q And chairman of the Executive Committee?

A Yes.

Q Would you please identify for the Commissioner the other officers, directors, and members of the Executive Committee?

A The other officers are: Kelly H. Gibson, Chairman of the Board of Directors; D. Howard Hushion, who is an executive vice-president; and Ronald M. Rutherford, who is also an executive vice-president; Robert L. Pierce, who is the secretary of the company; and Dianne I. Narvik, who is the assistant



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1 secretary.

2 THE COMMISSIONER: Excuse me,  
3 Mr. Blair. Do you have a copy of this? Are you reading  
4 from something?

5 A As well as those officers,  
6 that are in Foothills Pipe Lines, department managers,  
7 a director of operations, and a controller.

8 The other directors are Mr.  
9 Gibson, who is Chairman of the Board, and is also  
10 Chairman of the Board of Westcoast Transmission Company  
11 Limited; Edward C. Phillips, who is the president of  
12 Westcoast Transmission Company Limited; Robert Pierce,  
13 who is also an executive vice-president of the Alberta  
14 Gas Trunk Line Company Limited; Mr. Gibbs, our counsel,  
15 and senior partner in the law firm of McLaws & Company;  
16 J.R. McCaig, the president and a director of Trimac  
17 Ltd.; the Board has an Executive Committee composed  
18 of Messrs. Gibson, Phillips, Pierce, and myself as  
19 the directors representing the sponsor companies.

20 Q Mr. Blair, does the  
21 sheet attached to your prepared evidence and having  
22 your name at the top accurately describe your academic  
23 qualifications, your experience, and your other principal  
24 offices?

25 A Yes, it does.

26 Q Would you read into the  
27 record the contents of the sheet, please?

28 A My academic qualification  
29 was a Bachelor of Science degree from Queens University.  
30 I graduated in 1951. Since then, a summary of my



S.R. Blair  
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1 experience is that for the period 1951 to 1959 I was  
2 an engineer or superintendent for Canadian Bechtel  
3 Limited, principally, and on occasion for affiliated  
4 companies of Canadian Bechtel. On the original planning  
5 in some cases, on planning and construction in other  
6 cases, of the Trans-Mountain Pipeline Company's mainline  
7 across the Rockies, Trans-Canada Pipelines Limited,  
8 Lakehead Pipelines, Westcoast Transmission Company  
9 Limited, Union Gas Limited mainlines and various other  
10 pipelines in Canada and United States. I also spent a  
11 little time in those years on the construction of oil  
12 refineries.

13 For the period 1959 to 1969  
14 I was originally operations engineer and later general  
15 manager and president of Alberta & Southern Gas  
16 Co. Ltd., and its affiliate, Alberta Natural Gas Company  
17 Ltd., on the latter one I actually served as executive  
18 vice-president and general manager, operating gas  
19 pipelines and marketing to Alberta and British Columbia  
20 for export principally, and for some local consumption.

21 In the fall of -- in December  
22 of '69 I joined the Alberta Gas Trunk Line Company  
23 Limited to become its president and chief executive  
24 officer, which position I've held since that time.

25 In listing other principal  
26 officers I've tried on the sheet that I'm reading  
27 from, referring to, to put those out in a way which  
28 would seem to me to be most relevant to this appearance.  
29 I do serve presently as the president and chief executive  
30 of Foothills, and presently as president and director of



S.R. Blair  
In Chief

1 Pan-Alberta Gas Ltd., which is the gas marketing  
2 affiliate of the Alberta Gas Trunk Line companies,  
3 and I happen to serve as president as well as a director  
4 of a company called International Portable Pipe Mills  
5 Ltd., and I'm a director of some chemical companies  
6 which are affiliates of ours, including Alberta Gas  
7 Chemicals, Inc, which is one of the companies active  
8 in our production of methanol, the manufacture of  
9 methanol, and construction of a new plant, the second  
10 plant for that purpose. I serve as a director and  
11 as the chairman of the Board of the Alberta Gas Ethylene  
12 Company Ltd., and as a director and either president  
13 or chairman of a number of other subsidiaries of  
14 Alberta Gas Trunk Line Company Limited, which I  
15 didn't list here because I thought that perhaps it had  
16 little to do with this appearance. I'm a member of  
17 the Economic Council of Canada, and am a director --  
18 an outside director of a number of industrial and  
19 financial companies in Canada, and a trustee or council  
20 member of some other associations which perhaps <sup>it</sup> may not  
21 be deserving time to list in this appearance.

22 Q Mr. Blair, the Alberta  
23 Gas Trunk Line Company Limited, of which you are  
24 president and chief executive officer, owns and operates  
25 one of the three major Canadian gas transmission  
26 systems.

27 A Yes.

28 Q And what are the other  
29 two?

30 A The Trans-Canada Pipeline



S.R. Blair  
In Chief

1 system carrying gas east from the eastern boundary of  
2 Alberta and the systems of Westcoast Transmission Limited  
3 in the Province of British Columbia, extending into the  
4 Northwest Territories.

5 Q What role do the three  
6 systems play in the Maple Leaf project?

7 A One of the basic principles  
8 of the project is the new facilities will be built only  
9 where none now exists, or where those that do exist are  
10 too small to be of practical use. In line with this  
11 principle, new pipe will be laid only sufficiently far  
12 south to connect with the major lines of Alberta Gas  
13 Trunk Line, and Westcoast Transmission. From those  
14 points on the gas will be carried through the existing  
15 systems, expanded as necessary, to match market require-  
16 ments.

17 Q Would you describe the  
18 existing systems, please, and perhaps we can have the  
19 first slide? Mr. Blair, if you feel more comfortable  
20 standing down by the slide and making the description,  
21 feel free to do so.

22 A Thanks.

23 THE COMMISSIONER: Can you see  
24 at the back? Do you want to turn the lights out?

25 A The system in orange in  
26 the Province of British Columbia is that of the Westcoast  
27 Transmission Company, which operates -- and in giving  
28 some figures in the next few minutes I'll be talking  
29 of figures as at the end of the calendar 1974.  
30 Westcoast operates about 2,200 miles of pipe with an



S.R. Blair  
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1 average daily throughput of about one billion cubic  
2 feet a day, and with an original gas plant at cost  
3 of about \$700 million.

4 The Alberta Gas Trunk Line  
5 system --

6 Q Excuse me, what was that,  
7 an original of gas --

8 A Original gas plant using  
9 the term in the utility company sense, gas plant  
10 in service or facilities employed for gas transmission  
11 or processing.

12 Q You mean the physical  
13 asset?

14 A The physical assets of  
15 four gas transmission or processing services, and I  
16 gave the figure at cost, that's the original cost before  
17 depreciation.

18 The systems of the Alberta Gas  
19 Trunk Line Company, all within the Province of Alberta,  
20 are shown in blue on this map. They comprise 4,300  
21 miles of pipe, at the end of last year. The average  
22 daily throughput last year was 4.8 billion cubic feet  
23 a day.



1 And the aggregate  
2 capital cost of the facilities used for gas transmission  
3 was the same measure that I referred to as gas plant  
4 in the case of Westcoast. That figure for Alberta Gas  
5 Trunk at the end of last year was 546 million dollars.

6 The facilities of  
7 TransCanada Pipelines are shown on this map in a sort  
8 of olive, I guess, yellow-green. They involve  
9 5,700 miles of pipe. They averaged about 3 billion  
10 cubic feet a day of gas receipts from Alberta last year,  
11 and their aggregate original cost was \$1,555 million.

12 Q Mr. Commissioner,  
13 I have copies of that slide and the others Mr. Blair  
14 will refer to, and perhaps when he has completed  
15 his evidence, we could mark them all exhibits and  
16 distribute them.

17 THE COMMISSIONER: Yes, please.

18 MR. GIBBS:

19 Q Mr. Blair, would  
20 you now relate to the Commissioner the background to  
21 the proposals to construct a transmission system to  
22 transport natural gas from the northern frontier to southern  
23 markets and in so doing would you trace the development,  
24 the separate developments of the study groups and their  
25 objectives, the merger and subsequent activities down to  
26 a point where The Alberta Gas Trunk Line Company Limited  
27 elected to withdraw from the then study group and advance  
28 the Maple Leaf Project as an alternative to the Canadian  
29 Arctic Gas Pipeline project?

30 A To my knowledge, the  
first real organizing to move arctic gas through western



Canada occurred when six of the eastern based U.S. and Canadian companies formed the Northwest Project Study Group through discussions in 1969 and eventually the formal constitution of their Study Group as I recollect, in the summer of 1970. These companies included the three international oil companies holding a dominant position in the new oil and gas supply source of Prudhoe Bay; that would be the Humble, ARCO and the British Petroleum Company which was already then in the process of acquisition of SOHIO. They included two large United States gas transmission and distribution utilities and TransCanada Pipelines Limited.

The leadership of this group as we knew it, was provided by American Natural Gas Company and Exxon, whose personnel chaired the Group's Executive, Finance and Engineering Committees. The purpose of the Group as I understood it was to study a new express pipeline to move the American gas across western Canada to markets in the U.S. by a wholly new pipeline mainline through Canada which would stop at the International boundary upon reaching approximately the existing pipeline systems in the U.S.

The agreed arrangement, as I remember, was that this new pipeline would be owned in proportion to the percentage of participations of the Study Group members in their preliminary work.

Meanwhile in December 1969 my company, The Alberta Gas Trunk Line Company Limited, conceived that it should be a part of any main project to transport gas from north to south across Alberta. If



1 the point was to get the arctic gas to the nearest  
2 existing systems, that should really occur somewhere in  
3 northern Alberta and British Columbia, where our Company  
4 and Westcoast Transmission Company Limited already  
5 operated large gas pipeline transmission services. We  
6 were a natural link in the overall plan, so we asked  
7 if we could participate in the Northwest Project Study  
8 Groups organization. They replied no, that they would  
9 proceed with their studies and just might let us know  
10 later if there was any place for us in their project.

11 This hit us very hard,  
12 because the important time in a project is in the  
13 period when it is conceived and shaped as to its  
14 future design and policies. It can be of little  
15 attraction to participate as an investor or as a  
16 connecting facility late in the day in a project which  
17 has been moulded as to its' design, location, timing  
18 and other policies by other companies which have their  
19 own and different purposes as influenced by their  
20 different regions and ownership control and loyalties.

21 So within our Company  
22 we concluded that we could not afford to be left out  
23 of such studies. The obvious recourse was to perform  
24 our own study and planning so that our objectives and  
25 policies would be given recognitions in the project  
26 which would finally emerge.

27 We decided that we  
28 would advance an alternate study which we thought made  
29 more sense both in engineering, and public acceptance in  
30 Canada. Our study was to bring the arctic gas to



1 northern Alberta, then move it more economically through  
2 the existing systems from that point and also to have  
3 the entire Canadian segment managed, owned and operated  
4 by Canadian companies as a basic extension of the  
5 Canadian gas utility system, with the U.S. companies  
6 who were to be the recipients of Alaskan gas, remaining  
7 as customers but not entering the Canadian pipeline as  
8 co- owners and operators.

9 We felt that to advance a  
10 proposal of this kind we should have a Canadian partner  
11 which had a real interest in development through the  
12 Northwest Territories and which was an organization of  
13 national position. Canadian National Railways had  
14 shown interest in our planning and in 1970 had shown us  
15 in the agreements for our new study group which became  
16 named the Gas Arctic Systems Study Group. Alberta  
17 Gas Trunk and the CN became the sponsors of our new study  
18 group which started in 1970 and was eventually formalized  
19 in early '71, I think, with the last of the companies  
20 joining then. CN and our Company also entered a special  
21 agreement of joint undertaking which stated in its  
22 preamble, and if I might explain a remark not included  
23 in the prepared text. I chose to quote these paragraphs  
24 in this appearance because I thought that they helped  
25 to reconstruct now as well as anything that I could  
26 lay my hands on the spirit and the objectives that were  
27 in our minds five years ago. Some of the circumstances  
28 are different now, but many of the intentions have  
29 remained very consistent through these years.

30 "Whereas Gas Trunk is an Alberta corporation that



owns and operates an extensive existing gas pipeline undertaking which is located in and serves the Province of Albert and which is connected with similar undertakings that serve markets in British Columbia, Central and Eastern Canada, and the United States of America ; and

Whereas CN is a Canadian corporation that owns and operates a diversified undertaking, including transportation and telecommunications facilities, throughout Canada and has extensive experience in Canada's northern areas; and

Whereas important new sources of marketable natural gas have been discovered in the Canadian and Alaskan Arctic regions and further such discoveries may be expected in the Western Canadian Sedimentary Basin north of Alberta; and

Whereas Gas Trunk, by reason of its knowledge and experience respecting gas pipelines and by reason of the location of its existing facilities, is uniquely suited to provide the most advantage bus connection between the markets of North America and the new gas pipeline facilities that will be needed to transport gas from the aforesaid new sources to those markets and to provide leadership in marshalling, organizing and directing the application of resources that will be required to establish those new facilities; and

Whereas Gas Trunk commenced in April, 1970, and is continuing, to sponsor a northern gas trunk project (which we then called the "Trunk North Project" for



a brief period) contemplating the provision of facilities to transport Canadian and Alaskan natural gas to North American markets - an outline of that project, embodied in the introductory report published by Gas Trunk in April 1970 and revised as of May 1970, having been provided to CN - of which project it is a basic objective that the equity ownership of the Canadian portion of the new facilities should be and remain under Canadian control, to promote and protect Canadian interests in the development of northern Canadian gas supply areas and of Canadian markets whose demands can appropriately be met by the delivery of gas from the new facilities as well as to provide a reliable transport service across Canada for transporting gas produced in Alaska to United States markets; and

Whereas initial engineering studies, field investigations and certain commitments have already been undertaken by Gas Trunk in furtherance of the Trunk North Project including, engagement of an engineering consortium to conduct engineering studies, appointment of various financial and legal consultants, appointment of an environmental protection board, which is The Environmental Protection Board, which Dr. Carson Templeton has described in evidence before your Inquiry, and commitments respecting training of northern residents which began in Alberta on Alberta Gas Trunk Line systems in 1970. And negotiation with



1 gas transmission and distribution companies of  
2 cost sharing agreements regarding engineering  
3 studies.  
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S.R. Blair  
In Chief

"...and

WHEREAS pursuant to the aforesaid objective of Canadian equity ownership in the Trunk North project and in order to secure for the Trunk North project the benefits of C.N. skills and experience, particularly with respect to the northern environment, transportation, telecommunications and other related matters, Gas Trunk now proposes that C.N. in addition to its present participation in particular support activities, should join Gas Trunk in sponsoring the Trunk North project, it being mutually understood between Gas Trunk and C.N. that other offers should be made at suitable times to other Canadian natural gas pipeline operators and to other substantial Canadian corporations possessing appropriate skills, resources and/or interests; and

WHEREAS C.N. is agreeable to such proposal," the agreement then went out to establish the terms and conditions for the joint sponsorship of the Canadian section of the project.

Beginning in 1970 we also recruited into the Gas Arctic Systems Study Group four of the larger U.S. gas transmission and distribution companies. These were Columbia Gas Systems Service Corporation, Northern Natural Gas Company, Texas Eastern Transmission Corporation, and Pacific Lighting Gas Development Company. Each of these was in the position of not being included in the Northwest Project



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In Chief

1 Study Group but being interested in staying in touch  
2 with and contributing to the development of the north.  
3 Our company was named the operator of the study group.  
4 The C.N. and our company were called the Canadian spon-  
5 sors. An important clause in the Gas Arctic Systems  
6 Study Group agreement was:

7 "This agreement shall not be construed as  
8 an undertaking by Gas Trunk and/or C.N.  
9 or by Gas Trunk and/or C.N. on behalf of  
10 any corporation or corporations which might  
11 be rendering the transportation service  
12 contemplated by the projects, that Study  
13 Group member is, will be or shall have a  
14 right to be a participant in, or shareholder  
15 of any corporation or corporations which  
16 might in the future be rendering in whole or  
17 in part the transportation service contemplated by  
18 the projects, or any of them, in Canada. Gas  
19 Trunk will, however, if any project is con-  
20 summated, use its best efforts if Study Group  
21 so elects, to arrange to have transported  
22 (to the extent legally and practically possible)  
23 gas of the Study Group member in Canada or  
24 Alaskan gas which Study Group member shall have  
25 in Alaska, or which Study Group member causes to  
26 be delivered to the Alaskan-Canadian border."

27 My reason for selecting that  
28 particular condition from the agreement for the emphasis  
29 of this repetition in this appearance is that it very  
30 particularly concentrated at least in part of the



S.R. Blair  
In C hief

1 condition, on the point which was so central to all  
2 of our objectives and planning then that the job in  
3 Canada could and should be done by the Canadian compan-  
4 ies, and that the role of United States companies  
5 would be as customers of the service, but not, we felt,  
6 proper as co-owners or co-project managers or project  
7 operators of a utility system within Canada. We felt  
8 we were big enough and that this was our job to do.

9                   So through 1970 and '71 and  
10 '72 the two study groups went their own ways, doing the  
11 engineering, field work and economic assessment approp-  
12 riate to build a pipeline system but with the two  
13 different sets of ideas as to where the new pipeline  
14 should go, and how it should be managed and controlled  
15 in Canada. The Mackenzie Valley studies of our  
16 group and the Northwest project group involves a very  
17 considerable amount of field work and testing in those  
18 years. The Northwest project study group established  
19 and operated a large test site at San Sault and commis-  
20 sioned many consultants. The Gas Arctic Systems Study  
21 group operated test sites at Prudhoe Bay and Norman  
22 Wells, and these are of course the sites which the  
23 Inquiry has visited, sponsored the independent Environ-  
24 mental Protection Board and commenced some experimental  
25 operations integrated into the existing systems of  
26 Alberta Gas Trunk Line, and also commissioned consult-  
27 ants. Training of northerners for future real  
28 supervisory responsibility also began in our company's  
29 system in 1970, and has continued since then, and I'd  
30 like to add also here to the written text that it was



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1 our concept that there must be local involvement at a  
2 supervisory level in the construction of the pipeline, and  
3 particularly in the inspection of construction of the  
4 pipeline, and also in the supervision of operations.

5 We know as operators that it takes people a considerable  
6 time to achieve the expertise and self-confidence and  
7 on-the-job familiarity with operating situations and  
8 with construction situations to really make such an  
9 appointment meaningful, it takes many years, it takes  
10 anyone that we train in our normal business many years  
11 to achieve that expertise, and we felt the same factors  
12 would all apply in our recruiting of northerners, so  
13 we deliberately, far ahead of construction began to  
14 hire numbers of young men and some young women from  
15 communities throughout the north and to engage them in  
16 full-time employment in the Alberta Gas Trunk Line  
17 Company on the basis that that job would be theirs any-  
18 way, and that if, as and when there were a substantial  
19 pipeline project in the north, they would then be in  
20 a position to come back and give real leadership to  
21 the inspection of construction and to the operation of  
22 the system, and we've been absolutely delighted with  
23 the fine performance of the group as a whole. We have  
24 a number of those people who, just entirely through  
25 their own merits and talents, are now in the position  
26 of acting as instructors to the subsequent generation  
27 of northern trainees to whom more are added every  
28 year, and to our other staff that's hired to fill out  
29 our operating roster.

30 I will mention that in the



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1 same year still another team of companies, the Northern  
2 Pacific group, began to conduct studies and negotiations  
3 for a comparable alternative project located somewhat  
4 further west, of which Westcoast Transmission people  
5 will be in a position to report. Part of the political  
6 and industry comment in the early 1970's was that  
7 all the groups should merge eventually to avoid more  
8 serious duplication of effort, and possible frustration  
9 of the project through long drawn out adversary proceed-  
10 ings before regulatory agencies. This merger did  
11 finally occur in June of 1972, between the Gas Arctic  
12 and Northwest project groups, and the merged group was  
13 named the Gas Arctic/Northwest Project Study Group.  
14 As well as the six members of the original Northwest  
15 group and the six members of the original Gas Arctic  
16 group, a half dozen other companies joined at that time  
17 -- actually four joined immediately and a couple more  
18 very soon afterwards, and so joined at that time and  
19 other companies joined thereafter until by 1974 there  
20 was a peak enrolment of, I believe, some 28 companies.  
21 The new companies joining in '73 and '74 included  
22 Imperial, Gulf Canada and Shell Canada, who had  
23 the main land-holdings in the newly identified Mackenzie  
24 Delta gas supply area. Other participants included  
25 the three main gas distribution companies in Ontario,  
26 some other Western Canadian and national Canadian  
27 companies, and additional U.S. gas distribution compan-  
28 ies. This large group -- the members of this large group  
29 paid equally for the continued studies. The project  
30 presently advanced by its two agencies, Canadian Arctic



S.R. Blair  
In Chief

1 Gas Pipeline Limited and Alaskan Arctic Gas Pipeline  
2 Limited, if I have that right, was recommended by its  
3 management and prepared for regulatory applications.  
4 Meanwhile about May of 1974 some of the members began  
5 to resign from the group.

6 Alberta Gas Trunk Line left  
7 in September, 1974, upon concluding finally that it  
8 would be better to present its views and apply our  
9 efforts through participation with a small number of  
10 companies having consistent purposes, and through the  
11 vehicle of a federal pipeline company having the  
12 appropriate corporate objects, resources, and exper-  
13 ience to build a connection across the Northwest  
14 Territories between the Mackenzie Delta-Beaufort Basin  
15 gas supply area to the markets served by the company's  
16 system.

17 As one first step towards a  
18 regulatory application by such a company, Alberta Gas  
19 Trunk was able to and did contribute of course the  
20 use of all the work which it accumulated as the  
21 operator of the Gas Arctic system study group, and  
22 has appeared as a member and subscriber of the Gas  
23 Arctic Northwest project study, and its agency, Canadian  
24 Arctic Gas Study Limited.

25 In the last four months of  
26 1974, and the first four months of 1975, we put this  
27 work into Foothills Pipe Lines Ltd. and added other  
28 work and proceeded to prepare a complete application  
29 to the National Energy Board for a certificate of  
30 public convenience and necessity and also to the



S.R. Blair  
In Chief

1 Department of Indian Affairs & Northern Development  
2 for a right-of-way and other land requirements.  
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S.R. Blair  
In Chief

1 Q Mr. Blair, what were  
2 the main reasons for Alberta Gas Trunk Line Company's  
3 withdrawal from Canadian Arctic Gas Study Limited.

4 A There were many reasons.  
5 They became apparent and were stated during the  
6 two years of our participation in the Gas Arctic/  
7 Northwest Project Study Group. We summarized our  
8 reasons to all members of the group in May of 1974  
9 at a management committee meeting. That was a  
10 private meeting and I do not wish to elaborate in  
11 public now on all of the detail of the concern  
12 that we expressed then, because naturally it  
13 constituted a listing of the areas in which our  
14 company considered that the application then  
15 being carried forward by Alaskan Arctic Gas Pipe-  
16 line Limited and Canadian Arctic Gas Pipeline  
17 Limited was not what we thought should proceed or  
18 what we thought could succeed.

19 Because the project  
20 presently advanced by Foothills Pipe Lines Limited  
21 does not include those aspects of our concern or  
22 criticism of the Arctic Gas project, I suppose that  
23 all the issues of difference will naturally enough  
24 become compared and considered as the two alternate  
25 applications are presented before the regulatory  
26 agencies. So I believe it will be more proper and  
27 constructive for these differences to come out  
28 through that process rather than to reconstruct  
29 the past debates of study group committees.

30 I can say in a general



S.R. Blair  
In Chief

1 way though that the root of Alberta Gas Trunk's  
2 decision to withdraw from the Arctic Gas group  
3 was our judgment that Arctic Gas was pursuing too  
4 much the purposes of the original Northwest Project  
5 Study Group's desires to create an internationally  
6 known and wholly new express line across western  
7 Canada and was doing so too much for the special  
8 purpose and under the influence of the United  
9 States companies.

10 A particular symptom of this  
11 judgment were in the statements being made on  
12 behalf of the group by its management alleging  
13 a necessity of exporting Mackenzie Delta gas to  
14 the United States and alleging it necessary to  
15 piggy-back the new Canadian gas sources on movement  
16 of Alaskan gas across Canada. We were convinced  
17 that these allegations were not justified and were  
18 quite unnecessarily working to make the roles  
19 of the Canadian participants subordinate.

20 We decided that we must  
21 not be identified with statements which we dis-  
22 believed so strongly and even considered misleading.  
23 It was good to be participating in the Committee  
24 work, but hard to be in the Group when we obviously  
25 had serious differences with much of its management  
26 direction. In the end we supposed that the  
27 fair and effective way to put our own point of  
28 view forward henceforth would be through the  
29 rather demanding and expensive, but in the circum-  
stances necessary, arrangement of advancing a



S.R. Blair  
In Chief

1 separate application which would draw full public  
2 comparison as an alternative. We knew that the  
3 resources, knowledge and energy to do this did exist  
4 in the pipeline companies in western Canada and  
5 that with a close knit organization of construction  
6 and operations people, we could complete an application  
7 and if certified could complete a project with dis-  
8 patch and economy. So that was the conception  
9 of what has become, quite quickly, Foothills Pipe Lines  
10 Ltd. and the "Maple Leaf Project."

11 In presenting the Maple  
12 Leaf alternative we also had to be aware that because  
13 -- to list some possible occurrences, one, it might  
14 be decided that much of the Alaskan gas  
15 could be used inside that state, or, two, the U.S.  
16 might decide to move the surplus gas across Alaska and  
17 by ocean rather than through Canada, or three,  
18 the creation of such a tremendous and international  
19 project envisaged by Arctic Gas might take much  
20 longer or be much harder to implement than they had  
21 assumed.

22 Then in any of those three  
23 circumstances the complete and timely development  
24 and preparation of a project capable of connecting  
25 new Canadian sources to all the markets served  
26 by Canadian systems would be the way to go. So  
27 we decided to get on with what was necessary for  
28 the application and project.

29 Q Mr. Blair, who is  
30 doing the work for the Foothills or Maple Leaf Project?



A Most of it has been done

In Westcoast and Alberta Gas Trunk there are, as I mentioned, earlier, two of the three major gas transmission companies in Canada. They are two independent western Canadian companies in this industry and the two which have accumulated the experience in and led in the development of design, construction and operating techniques for northern terrain and conditions.

The combined gas plant and service of the two companies totals 1.3 billion dollars in historic costs, and if valued in current 1975 costs, of, it would be 1.8 billion dollars or if escalated further to equivalent 1979 investments would represent, I am sure, some 2.4 billion dollars of facilities and I just give those



S.R. Blair  
In Chief

1 figures as a matter of perspective of the size of  
2 the figures that will be described for the  
3 Foothills project.

4 Q Mr. Blair, you have  
5 dealt generally with some fundamental differences in  
6 approach as between Foothills and Canadian Arctic  
7 Gas Pipeline, can you now speak to physical  
8 differences?

9 A I would like to do so  
10 in general terms. There will be persons on subsequent  
11 panels who will be particularly able to discuss  
12 the details, but I can generally describe some of  
13 the more important differences and perhaps I could  
14 start with an overall view by the means of a  
15 couple more slides.

16 Q Again, Mr. Blair, if  
17 you want to go up to describe them, please  
18 feel free to do so.

19 A I think perhaps I can  
20 do this briefly just from the seat here. That slide  
21 has been prepared by our staff to show for comparison  
22 our -- what to our knowledge is the project presently  
23 proposed by Arctic Gas and I don't mean to suggest  
24 any special accuracy, it's just a drawing to show  
25 for comparison the large international system  
26 which by the evidence that has been given on their  
27 behalf we understand they presently contemplate  
28 to move gas from Alaska and the Mackenzie Delta in-  
29 to Alberta to connect with the head end of the  
30 TransCanada system and then through <sup>three</sup> new main lines



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In Chief

1 to move the gas on into the United States and it  
2 is a system which I have characterized and which  
3 I believe to be emphatically an internationally  
4 owned express system designed principally to move  
5 gas from both United States and Canadian sources to  
6 United States markets.

7 Q Can we have the next slide,  
8 please.

9 A And for comparison we have a  
10 similar sketch of the "Maple Leaf Project" with  
11 its components of a new pipeline system across  
12 the territories, the Northwest Territories which  
13 presently has no gas pipeline service, to connect  
14 the Mackenzie Delta gas to bring it down to a point  
15 just north of the Alberta/B.C. boundaries, through  
16 a 42 inch mainline which will be described in much  
17 more detail later by others and with, as an integral  
18 part of that application, a system of delivery  
19 laterals to deliver gas to communities in the  
20 Northwest Territories of which in the scale of  
21 this map, the main laterals out to Yellowknife and  
22 nearby communities and to Hay River shows as a  
23 separate line the delivery lines to a number of the  
24 other communities of the Northwest Territories is  
25 simply too small to appear on that map, but those  
26 delivery lines appear in detail in the applications  
27 that we filed.

28 And then within the  
29 "Maple Leaf Project" overall, the applications  
30 provide for the carriage of that Mackenzie Delta gas



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1 on to markets across Canada to sustain supply to  
2 existing markets and even to extend the provision  
3 of gas supplied to new markets in Canada including  
4 as shown schematically there, Vancouver Island to  
5 the west and Quebec City and the lower St. Lawrence  
6 Valley to the east. On that map the system of  
7 putting dash portions of colour beside the existing  
8 lines represents the concept of line looping of  
9 gradually building up the deliveries through  
10 existing systems by looping existing lines rather  
11 than by building wholly new lines and the orange  
12 dashes therefore illustrate, symbolize that  
13 design as occurs in British Columbia, the blue ones  
14 as it occurs in Alberta, the green ones as it  
15 occurs across Canada to the east.

16 While for -- the purpose  
17 of a slide projection, this illustrative slide, I think,  
18 does the job better than a lot of detail. Perhaps,  
19 I hope that it is proper for me to mention that  
20 more detailed analysis of that looping, as well  
21 as being given by other witnesses appears in the  
22 maps in your display room.



S.R. Blair  
In Chief

1 MR. GOLDIE: I don't like  
2 to interrupt my friend, and I would not do so but for  
3 the fact that this/ <sup>has been</sup> placed on the record with the  
4 assistance of a slide, and the impact of a slide, of  
5 course, disappears more rapidly than that of exhibits.  
6 I am concerned that although the witness has stated that  
7 these are illustrative only, the previous slide suggested  
8 that Trans-Canada Pipelines in Canada was not connected  
9 in any way to/ <sup>the</sup> Canadian Arctic Gas proposal. On the  
10 other hand, this slide purports to show that the Trans-  
11 Canada Pipeline system is, and I'm sure that Mr. Blair  
12 did not mean to be misleading, but I think it would  
13 be appropriate for him to place on the record now  
14 the relationship of Trans-Canada to the two proposals.

15 MR. GIBBS: : I'm sure Mr.  
16 Blair is happy to do so, although I remind my friend  
17 that <sup>speaking to</sup> in the Gas Arctic slide, Mr. Blair did point out  
18 that it connected with Trans-Canada at Empress, Alberta.  
19 But if my friend wants further explanation, why --

20 MR. GOLDIE: : I raise it  
21 because the slides themselves, which have a visual  
22 impact at this time, and are not reflected in the  
23 record, in my submission require some clarifi-  
24 cation and that's why I asked my friend to do so  
25 now.

26 MR. GIBBS: I'm not sure what  
27 he wants me to ask Mr. Blair, and what he wants Mr.  
28 Blair to say. It's already before this Inquiry that  
29 Trans-Canada Pipeline is a member of the Canadian Arctic  
30 Gas Study Group and Canadian Arctic Gas Pipeline Limited,



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1 THE COMMISSIONER: The point  
2 is, as I understand it, that the Arctic Gas system,  
3 if it were built, would supply gas to Trans-Canada  
4 Pipelines.

5 MR. SCOTT : In short, Mr.  
6 Commissioner, you left off a red line in the upper  
7 chart, isn't that what was done?

8 MR. GIBBS: Oh no, oh no, that's  
9 not so because there is not before this Inquiry or  
10 before the National Energy Board yet, an application  
11 for Trans-Canada to be part of the red system or indeed  
12 part of this system.

13 THE COMMISSIONER: Q Well, Mr.  
14 Blair, can you help us out?

15 A I'd like to explain that  
16 I think <sup>that,</sup> presenting the slides this way is quite  
17 rational because the cost figures quoted for the Maple  
18 Leaf project have always included express reference  
19 calculation of the capital costs of the expansion of  
20 the Trans-Canada system, of the operating costs of  
21 moving gas through that system down to markets in  
22 Ontario and Quebec, of the availability of pipe from  
23 Canadian manufacturers for the expansion of the Trans-  
24 Canada system, and information which in its detail  
25 and completeness is similar for Trans-Canada to the  
26 information presented in the Maple Leaf project for  
27 Alberta Gas Trunk and Westcoast Transmission. So that  
28 we think of Trans-Canada and speak of it as an integral  
29 part of the Maple Leaf project.

30 I know I am accurate this far,



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1 in saying -- I'm quite sure I'm accurate in saying  
2 that I don't believe that the Arctic Gas project has  
3 ever mentioned, any capital cost figures or operating  
4 cost figures or shown any design for expansion of  
5 Trans-Canada. They have shown only the facilities in  
6 Alaska to move the gas to the international boundary  
7 and to move it on into the United States.

8 Q Excuse me, you're speaking  
9 too fast there. You said they have shown only what?

10 A I know that the represen-  
11 tations on the evidence of Arctic Gas have included  
12 only the capital cost, operating cost, construction  
13 and other data for facilities in Alaska, through the  
14 Northwest Territories and through Alberta, to the inter-  
15 national boundary, and then the facilities going on  
16 into the United States. So that I think that my pre-  
17 vious slide, if I could just go back to it again, is  
18 accurate in representing what is described as the  
19 Arctic Gas project, and while it shows on the slide,  
20 certainly it connects to the Trans-Canada and to utilities  
21 in Alberta and to a number of other facilities by  
22 going by there will be a physical capability to tie  
23 into other systems, but I think it's still fair to  
24 say that is what is being described publicly as the  
25 Arctic Gas project, and go back to my slide again.  
26 That is what is being described publicly as the Maple  
27 Leaf project.

28 MR. GOLDIE: Mr. Blair has  
29 made it quite clear that he intended to convey the  
30 impression that he has just described, and I'll leave



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In Chief

1 that to cross-examination.

2  
3 MR. GIBBS: Was that a  
4 threat?

5 MR. GOLDIE: I don't want to  
6 interrupt your presentation any longer, because other-  
7 wise we could get into a debate, and I'm sure that's  
8 not what you want to hear.

9 MR. GIBBS: I'll let you  
10 debate with Mr. Blair.

11 THE COMMISSIONER: Before you  
12 go on, I should say, Mr. Gibbs, if you permit me, that  
13 I understand the Court reporters have been very busy  
14 and they intend to be busy tonight getting out the  
15 transcript of the proceedings last week in Whitehorse,  
16 and under those circumstances I think it would be best  
17 if we carried on with the completion of Mr. Blair's  
18 evidence in chief, and then adjourn it until tomorrow.  
19 Would that be all right, Mr. Scott? I take it that's  
20 all right.

MR. SCOTT: Yes, sir.

MR. GIBBS: Q Have you then,  
Mr. Blair, finished your description of these two slides?

A Yes.

Q Then Mr. Blair, could  
you now speak to pipeline sizing and economics, and I  
might refer you to some of Mr. Horte's remarks about  
the Canadian Arctic Gas delta lateral. AT page 5547 of  
the transcript he said:



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1 "Whether in the long run on a straight economic  
2 basis it would have been the right decision or  
3 not,<sup>it</sup> is something we'll only know after the  
4 fact, because if the build-up of volumes were  
5 rapid, then one would find that the 48-inch  
6 diameter would certainly have been a wise  
7 decision on the basis of economics alone.  
8 Whereas if the build-up were slow, the economic  
9 decision would probably favor the 42-inch  
10 system."

11 With that, Mr. Blair, as a basis, could I start this  
12 series of questions by asking for the traditional  
13 approach to pipeline sizing?

14 A One considers gas supply,  
15 market requirements, materials available, costs.  
16 Supply is considered in terms of daily deliverability  
17 and of a reserve base sufficient to sustain deliveries  
18 for a reasonable length of time. Provided the reserves  
19 and deliverability are there, the objective is to  
20 size to accommodate the market for an initial period  
21 and then if a market build-up continues, and the supply  
22 sources hold up, to increase capacity later through a  
23 looping program again matching increasing market require-  
24 ments.

25 Q You have emphasized the  
26 market side of the equation. Why accord it such impor-  
27 tance?

28 A If the pipeline is over-  
29 sized in the sense that for a long period of time  
30 there is more capacity than the market requires, or the



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1 supply can fill, a cost burden is cast upon the  
2 ultimate consumer who must pay by way of greater unit  
3 cost than if the spare capacity had not existed.

4 Q Is the tendency then  
5 towards conservatism, Mr. Blair, in the sense that  
6 caution will dictate a smaller size than may ultimately  
7 be required?

8 A I don't know if "conser-  
9 vatism" is the proper expression. We always try to  
10 get the correct size. We obtain the best forecasts  
11 that we can and size accordingly. Of course, it is  
12 comforting to know that if experience shows the size  
13 to be insufficient to accommodate market build-up,  
14 that situation can be remedied by adding compression  
15 or looping, or both, whereas over-sizing is a circum-  
16 stance that cannot be remedied.

17 Q Is the addition of com-  
18 pression or looping to already existing facilities to  
19 increase capacity necessarily a bad technique? That  
20 is to say that it's something to be avoided.

21 A No, not at all, at least  
22 not in economic terms. Adding compression or looping  
23 at appropriate times enables a carrier more closely  
24 to match capacity to market requirements. And dependent  
25 on the timing and the financial circumstances, it  
26 follows that the unit cost to the ultimate consumer  
27 will be less. As well, there may be a distinct advant-  
28 age to the transmission company in that the additions  
29 after gas starts to flow can be paid for in part by  
30 current revenues. Capital requirements are thus



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In Chief

1 obviously less than if the original construction  
2 provides full system capacity.

3 Q In giving these answers  
4 you have been speaking from experience, Mr. Blair?

5 A Yes, Alberta Gas Trunk  
6 has gone through this process continuously as has  
7 Westcoast and Trans-Canada, and I dare say every major  
8 transmission company in North America. You described  
9 it correctly in an earlier question when you called  
10 it a "traditional approach".

11 Q From what you have said,  
12 the reliability of forecasts has a lot to do with  
13 sizing?

14 A Yes, we do have to rely  
15 heavily on forecasts of reserves, deliverability, and  
16 market requirements.

17 Q And have you found such  
18 forecasts to be reliable?

19 A In large part, our  
20 forecasters have been accurate. Of course, the further  
21 one looks into the future, necessarily the less accurate  
22 the prediction is likely to become.

23 Q Based upon your forecasts,  
24 and of course those of the National Energy Board and  
25 others, what conclusions do you draw as to the Canadian  
26 Arctic Gas selection of 48-inch pipe?

27 A I believe that the  
28 interests of Canadian gas consumers, present and  
29 future, would be better served by the use of a smaller  
30 sized line. Prevailing opinion is that all of the  
or virtually all



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In Chief

1 Beaufort Basin gas will be required in Canadian markets  
2 and --

3 THE COMMISSIONER: The Beaufort  
4 Basin, Mr. Blair, so that we understand each other,  
5 that includes Mackenzie Delta.

6 A Yes sir, it does. It  
7 includes the entire new gas supply and potential  
8 gas supply in the Mackenzie Delta and nearby regions  
9 within Canadian jurisdiction .

10 Therefore the prudent and  
11 proper course is to size and expand by matching Canadian  
12 market requirements. Foothills' forecasts show that  
13 a 42-inch line would be sufficient to 1984 or 1985, and  
14 given the uncertainties of predicting events ten years  
15 hence or later, it might well be sufficient for a  
16 greater period of time.

17 MR. GIBBS: Q But that would  
18 not be sufficient to carry the Alaska gas as well as  
19 the Canadian gas?

20 A It could carry some  
21 Alaskan gas.

22 Q Mr. Blair, two matters  
23 seem to surface with respect to that position. The  
24 first is the matter of the sufficiency of reserves for  
25 a Canadian only line for Canadian gas to Canadian mar-  
26 kets. Can you comment on that?

27 A Yes, and I'll apologize  
28 that to a degree, this prepared testimony which had  
29 to be prepared some weeks before this appearance, will  
30 overlap with some spontaneous testimony at Norman Wells



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1 last week. We believe that the gas reserves that  
2 have been identified so far in the delta are sufficient  
3 for the filing and the hearing of applications for a  
4 certificate to provide for their pipeline connection.  
5 We believe that those reserves now identified plus the  
6 additional reserves which can reasonably be expected  
7 to be identified as supply sources to the pipeline  
8 during the next year or two, will be sufficient and  
9 timely to obtain financing for the pipeline connection  
10 which we propose.

11 I have made those statements  
12 for this record with complete awareness that there are  
13 others in the sponsors, management or consultants of  
14 the Canadian Arctic or Arctic Gas organizations who  
15 allege that I am not correct. They have shown this to  
16 be their position. I believe, nevertheless, that our  
17 statements are correct and proper. They are made after  
18 particular knowledge of the reserves which existed at  
19 the time each of the main pipelines in Canada were  
20 constructed and after discussions with our advisors.

21 Q The second matter, Mr.  
22 Blair, is how Foothills would propose that Prudhoe  
23 Bay gas get to U.S. markets overland, if it is deter-  
24 mined as a matter of high government policy that there  
25 be overland transportation of that gas?

26 A If we do put into service  
27 within the Canadian jurisdiction a pipeline connection  
28 designed to move Canadian Arctic<sup>gas</sup> to markets across  
29 Canada, and so create a pipeline system conceived,  
30 designed and managed for that purpose, personally I



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1 can see it possible to extend the use of that system  
2 under some circumstances to provide some service for  
3 the movement of Alaskan gas across Western Canada, if  
4 the Government of Canada should decide that they wish  
5 that offer to be made to the United States.



Still, if the Government of Canada should decide at a high policy level that it



1 does wish to accommodate the U.S. by having this  
2 utility offer a supplementary supply service for  
3 increments of Alaskan gas across Western Canada,  
4 controlled as to timing and amount of service, I am  
5 sure that the Maple Leaf system could participate most  
6 cooperatively. Actually both Alberta Gas Trunk with  
7 it's affiliates and Westcoast Transmission are deeply  
8 involved in trade with and service to United States  
9 companies and I don't think I am going at all too far  
10 to state that we are known and trusted in business  
11 by those United States companies which are dealing with  
12 us at arms length.

13 I think I should also  
14 point out a particular advantage of a system which is  
15 not dependent upon a supply of Alaska gas. Such a  
16 system can be certified and constructed according to  
17 Canadian needs and would be independent of and  
18 unconcerned with decisions or delays in foreign  
19 jurisdictions. In other words, the timing of much  
20 needed Canadian supply to Canadian markets will not  
21 in any way depend upon what happens in regulatory  
22 of litigation or legislative processes elsewhere.

23 Q Mr. Blair, A Canadian  
24 Arctic Gas witness when explaining the techniques of  
25 increasing capacity by adding looping and compression  
26 made this point at page 5560 of the transcript:

27 "Now, of course if the demand for the gas were  
28 not there you would have not reason to expand  
29 your facility and looping would not take place".

30 I take it that is a sort of common sense statement?



A Of course it is. It is also an extension of what we have said about sizing when a new line is built. Both in that case, and in subsequent increases by looping or additional compression, the object is as nearly as possible to match market demand. Also the same capital cost and cost of service considerations have a bearing. That is to say, excess capacity, which affects cost of service is avoided, and because current revenues can be applied to the cost of the capacity increases, the requirement for new capital financing can be kept to a minimum.

Q And that applies as much to existing transmission systems as it does to a wholly new system?

A Yes, and that is why we advocate the construction of a new line only where no line now exists - into the Delta from northern Alberta and British Columbia. Experience, capital cost cost of service calculations, environment and common sense all tell us that when the line is far enough south to connect with existing systems those systems should have capacity increased in the manner described as a match to market requirements. It is far from normal to build a wholly new line as a duplicate facility alongside an existing line which could be looped.

Q I take it then that you agree with Mr. Horte's concern, expressed at page 5647 that there should be connections with existing facilities and:



1 "... the long term use of those facilities  
2 including those of TransCanada Pipelines going  
3 from the Alberta/Saskatchewan border to Manitoba  
4 as compared to the possibility in the long term  
5 of those facilities becoming idle..."

6 A Yes, I do agree, and I  
7 have not been able to understand why that really  
8 irresistible logic doesn't extend to our own AGTL  
9 facilities within Alberta. We have forecast what spare  
10 capacity will develop in the AGTL system in the  
11 future. If it is not utilized the unit cost of  
12 provincial source gas being transported through the  
13 system will have to go up.

14 Q Now, could we have the  
15 slide that shows that? Will you describe that  
16 slide Mr. Blair?

17 A Yes, that slide  
18 illustrates the forecast that the service rendered  
19 by Alberta Gas Trunk in Alberta to move Alberta gas  
20 which is presently, to use the right hand scale  
21 averaging in '75, about 5 1/2 billion cubic feet a day  
22 of capacity. That that capacity will necessarily  
23 be built up in the next few years to meet the  
24 continuing growth of Canadian markets to a level which  
25 is hard to forecast at the moment, but for the purpose  
26 of this slide is shown as about 6 billion cubic feet  
27 a day. Or about 6.4 billion cubic feet a day to read  
28 that graph a little better. But then sometime around  
29 1980, and the range of our forecast presently is from  
30 as early as '79 to maybe as late as '81, that in



1 spite of the attachment of additional fields in  
2 Alberta there will a net decline in total delivery  
3 from Alberta sources so that since the pipeline  
4 exists for ever, there will become available some  
5 spare capacity in the system. These calculations are  
6 also of the sort which have been made in much greater  
7 detail and more in particular can be shown on a slide  
8 and which will be spoken to by other witnesses during  
9 our presentation. But this brings out in a general  
10 way the point that there will be existing capacity  
11 in Alberta.

12 Q If you can see that  
13 there will be idle capacity in the future Mr. Blair  
14 why build it?

15 A Some such capacity  
16 already exists has already been built, and more will  
17 be needed to increase deliveries from Alberta to  
18 the market served by Canadian systems in the years  
19 before arctic gas could be delivered by any project.

20 THE COMMISSIONER: Excuse me  
21 Mr. Gibbs, I'm sorry. Forgive me for stopping you.  
22 I don't quite understand what that last question and  
23 answer mean. Why build what? If you can see that  
24 capacity will be idle in the future, why build it? As  
25 I understood it Mr. Blair is proposing to build this  
26 Maple Leaf line, but did he say -- have I overlooked  
27 something? Did Mr. Blair say he anticipated expanding  
28 the existing Alberta system?

29 MR. GIBBS: That was the purport  
30 of the slide. If we could have it back on? That the



1 existing Alberta system -- that was the Alberta Gas  
2 Trunk Lines existing systems that was on the slide.

3 THE COMMISSIONER: Well it  
4 is important that I understand what you are talking  
5 about. I thought that that was the existing system,  
6 and your spare capacity resulted from a decline from  
7 current production in Alberta. Have I misunderstood  
8 this?

9 A No, perhaps if I could  
10 just speak to the graph again briefly I might bring  
11 this out better. The maximum day design capacity  
12 of Alberta Gas Trunk Lines systems as of some current  
13 moment, last month, is 5 1/2 billion cubic feet a day  
14 which means we've intercepted this line here  
15 accurately, 1975.

16 To explain, I kind of  
17 as we gave it  
18 looked at that question and answer too, /to make sure  
19 it was really coming through clearly. There does  
20 happen incidentally to be a little bit of spare  
21 capacity within this for purely local reasons. Some  
22 place we have some mainline which was built to move  
23 gas from sources which have already historically started  
24 to decline and we have a local condition of some pipeline  
25 that could be put to some good use in moving gas  
26 across Alberta, moving gas across Alberta, but that  
27 was really only said to be complete, it is not an  
28 important point. We expect that there will be a  
29 continuing demand for the growth of capacity through  
30 our systems.

This year our construction



1 program is \$100 million of service expansion, and I  
2 will expect that we will have large service expansion  
3 requests in these next years, also tempered by the  
4 recognition that the maturity of the growth of  
5 gas supply from Alberta is getting to a point in which  
6 it is questionable how long it can continue the rate  
7 of past growth.

8 And in reply to this  
9 last question to Mr. Gibbs when he is say ing  
10 "well, why if you can see that as early as out here,  
11 you are not going to need that capacity, why put it in  
12 at all?" And the question and answer that we were  
13 giving each other was to say that because in these  
14 years the growth is needed, and it will be, we think  
15 proper to proceed and install the additional capacity.  
16 All the more so if it anticipates another service of  
17 this sort coming down the line in the future.



S.R. Blair  
In Chief

1 Q Mr. Blair, with reference  
2 to capital costs now, Canadian Arctic Gas have described  
3 their plan for Canadian equity participation, saying  
4 that they believe they can raise more than 50% from  
5 Canadian sources and that 50% is \$700 million. Mr.  
6 Blair, you have experience in pipeline financing, both  
7 with equity and debt?

8 A Yes.

9 Q Would you comment, based  
10 upon your knowledge and experience, on the prospect  
11 for raising \$700 million in equity by a Canadian  
12 offering?

13 A I think that the first  
14 question is whether the project is of a kind that  
15 Canadian companies and individuals will wish to invest  
16 in when everything is considered. I tend to be high  
17 on the ability of Canadians to do many of the things  
18 that we have been told in the past we just could not  
19 cut the mustard on, and I'm not enthusiastic about  
20 speaking negatively about the capital -- equity capital  
21 raising capabilities of any first-rate Canadian project,  
22 in the past we have been led to believe that there  
23 were so many things we had to leave for foreign capital  
24 interests to do in our country with all of the ramifi-  
25 cations and bad effects that I believe that has had on  
26 management influence in foreign decision-making in  
27 Canada. I wouldn't be at all shy about supporting a  
28 proposal that Canadians raise several hundreds of  
29 millions of dollars for any project that would make  
30 money, and was clearly manageable and would do a lot



S.R. Blair  
In Chief

1 for Canada. Whether or not they would ever/raise \$700  
2 million in the 1970's, I just do not know. But I do  
3 doubt that Canadians would subscribe to very large  
4 amounts of equity for a project which may be shown  
5 to be principally for the advantage of the United States  
6 economy and which would involve unnecessarily heavy  
7 investment of capital and resources in Canada. My own  
8 opinion is that is just what will be shown about the  
9 Arctic Gas project.

10 Q What are the Foothills  
11 capital requirements?

12 A For the facilities neces-  
13 sary to enable first year delivery of 800 million  
14 cubic feet a day, the capital requirements are \$1,775  
15 million. Just over 1 3/4 billions in dollars. The  
16 financial plan put forward by our financial advisors  
17 contemplates that of that sum, \$131 million will be  
18 generated by the sale of preferred shares, and \$313  
19 million by the sale of common shares. The balance will  
20 be raised by debt, that is to say bonds, term bank  
21 loans, and debentures.

22 Q What about the expansion  
23 Gas  
required on the Westcoast and Alberta/Trunk systems?

24 A That will be funded by  
25 each of those companies in the normal and historic man-  
26 ner in which they have always operated. Funding for  
27 expansion is almost an annual exercise by each, and  
28 expansion for the Maple Leaf project would be no dif-  
29 ferent.

30 Q On page 5611 of the



S.R. Blair  
In Chief

1 transcript, Mr. Horte spoke of conditional equity  
2 commitments of some \$400 million from some of the  
3 Canadian sponsor companies. Can you comment on those,  
4 Mr. Blair?

5 A I suppose these announce-  
6 ments indicate the concern of Canadian gas transmission  
7 and distribution companies to participate in arranging  
8 more gas supply and to supporting the financing of a  
9 pipeline which can get its certificate from the National  
10 En ergy Board. Our own Alberta Gas Trunk Line Company  
11 made such an announcement a couple of years ago, and I  
12 think we are all pretty much in the same boat. We want  
13 to get a pipeline going soon, and we want it to be under  
14 the control of Canadian companies. It is our intention  
15 to ensure that all of the equity in Foothills is owned  
16 by Canadians, both corporate and individual investors.  
17 We have no doubt at all about the ability to obtain  
18 the equity capital from Canadian corporate or individual  
19 investor sources. I think if anything we will have a  
20 lineup of people wanting to buy those shares.

21 One impression I do want to  
22 counter is that offering 51% of the shares to Canadians  
23 always means much. I have two reasons to make that  
24 comment. One reason is that 40% or less of the shares  
25 in foreign ownership may still accomplish effective  
26 management control. The other and more important  
27 reason is that the most important time of all to  
28 influence and control management is in the years in  
29 which the project is conceived and designed and its  
30 policies are set. If you submit to foreign control in



S.R. Blair  
In Chief

1 those years you don't help materially by offering to  
2 Canadianize the project later by offering half the  
3 shares to investors in Canada and appointing a number  
4 of Canadian directors. All that would do is soak up  
5 available Canadian savings and management talent to  
6 support a foreign conceived and led undertaking.

7 Q Turning to line location,  
8 M r. Blair, there are differences as between Foothills  
9 and Canadian Arctic Gas?

10 A The most obvious difference  
11 is that Foothills has no line and hence no location in  
12 this application between Travailant Lake and Prudhoe  
13 Bay. There are also location differences between the  
14 delta and 60th Parallel but I would prefer to leave those  
15 differences to be described and justified by the  
16 witness panel on location which will be called later.

17 Q Another major difference  
18 between the two projects is with respect to gas service  
19 to northern communities. Would you now speak to that  
20 subject, please?

21 A On May 27th the Standing  
22 Committee on National Resources and Public Works was  
23 informed in an appearance which we happened to be making  
24 before that committee at that time that Foothills would  
25 deliver gas to a list of principal communities and  
26 settlements in the Mackenzie Valley and Great Slave  
27 Lake areas as an integral part of its system under  
28 application. The committee was also informed that Foot-  
29 hills would roll in the relatively high unit cost of  
30 servicing those communities with the overall mainline



S.R.Blair  
In Chief

charges so that the transmission charge to each community for residential and commercial use and for power generation would not be greater than the transmission charge made by Foothills for delivery of gas at the downstream end of the system just north of the Alberta border. We regarded these as important and very real commitments. They mean that natural gas can be delivered to the communities at much less than the cost of fuel oil. So that there would be a real economic advantage to the consumers in the Northwest Territories. I have read that Arctic Gas management have tried to make this decision seem unimportant, and I wish to meet them head on on this issue. Foothills has taken two very material steps.

The first step was to locate, design, route survey and otherwise prepare the delivery laterals for installation and to include them as an integral part of our application for land use, and for a certificate of public convenience and necessity.

The other material step has been to announce the particular rate policies I have referred to. That deliberately put the onus on Foothills to establish, support and defend a rate structure that would provide this particular advantage to the communities in the Northwest Territories. That goes, in my view, a long, long way further than saying things like, "It's up to the government to decide," or "Arctic Gas will do whatever it is told to do."

It means that Foothills is taking on the responsibility to see that this great



S.R. Blair  
In Chief

1 advantage to northerners is well-championed and that  
2 that advantage will be built into all the negotiations  
3 with other customers in system financing, legal and  
4 administrative implementation. Defence of this advant-  
5 age will therefore be the responsibility of the Foothills  
6 organization, not left to citizens' groups to sponsor  
7 while the pipeline company stands back commenting on  
8 complexities or raising difficulties.

9 Of course, investment in  
10 delivery laterals by Foothills will be expensive.  
11 Our estimate shows \$59 million in escalated direct  
12 costs, or \$72 million when overhead, engineering, and  
13 all the other factors are added. But in my view this  
14 could be a more justifiable investment than say the  
15 \$150 million which Arctic Gas says, at transcript  
16 page 5586, I'm told, that it will spend for extra  
17 line size in their supply laterals and which extra line  
18 size may never be used, or certainly will not be used  
19 for a long time.

20 Q Won't the effect of  
21 rolling in costs mean that downstream users will be  
22 paying at least part of the annual costs?

23 A To provide natural gas  
24 service to the northern communities, which contain  
25 some 50% in the population of the Northwest Territories,  
26 under the pricing structure proposed by Foothills it  
27 is estimated that 11 or \$12 million per year will be  
28 added to the total annual cost of transporting gas  
29 through the Foothills system. The net effect of  
30 this is to add approximately 1 1/2 ¢ per Mcf. to the



S.R. Blair  
In Chief

1 cost of gas delivered at the Northwest Territories  
2 -Alberta border. Our studies indicate that by the  
3 mid-1980's by using natural gas rather than fuel oil  
4 the annual saving on the average would be about \$500  
5 per northern household or more.



S.R. Blair  
In Chief

1 Q Can you translate those  
2 last cost figures in to terms of households?

3 A The average household  
4 in southern Canada consumes on the order of 200  
5 m.c.f.'s per year so a householder in Toronto would  
6 pay about three dollars more per year for a fuel  
7 cost saving to a northern household of about  
8 \$500 per year.

9 Q So it would cost a  
10 southern Canadian household about 25¢ per month?

11 A Yes.

12 THE COMMISSIONER: Excuse  
13 me, you mean that Mr. Scott who has a house in  
14 Toronto would be paying 25¢ a month to enable  
15 Mr. Carter who has a house here in Yellowknife  
16 to save \$500 a year? Have I understood this?

17 A Yes. You know, that's  
18 it exactly. This is a type of rate setting --

19 MR. SCOTT: It is only a  
20 fraction of what we pay.

21 THE COMMISSIONER: Carry  
22 on.

23 A It is a type of rate  
24 setting for which there is established precedents  
25 in Canada and we have just brought out this  
26 arithmetic to show what the real practical effects  
27 are on the people.

28 MR. GIBBS:

29 Q So far, Mr. Blair, you  
30 have dealt with the gas service to northern communities



1 in terms of transportation costs. What about the  
2 gas itself? Who will be responsible for obtaining it  
3 from the producers for delivery to the communities?

4 A We see that as a  
5 responsibility of the transmission company, that is,  
6 to see that gas is made available. Foothills is  
7 pursuing that responsibility and as part of that  
8 effort on May 22, wrote to each of Imperial, Shell  
9 and Gulf saying that Foothills is prepared to enter  
10 into agreements to secure a gas supply for northern  
11 communities and asking for an indication of the  
12 terms and conditions including price at which  
13 each was prepared to supply gas for such purposes.  
14 The responses have given sufficient encouragement that  
15 we are in the process of follow up to obtain more  
16 detail and, if possible, some firm commitments.  
17 We are also negotiating gas purchases in that  
18 area through a sister organization, the Gas Initiatives  
19 Joint Venture, which has been formed recently  
20 between Alberta and Quebec companies.

21 Q Are there any other  
22 differences between the Maple Leaf and Canadian  
23 Arctic Gas projects about which you wish to comment?

24 A There are a large number  
25 of differences on a detailed level that will be  
26 dealt with by subsequent panels. The remaining  
27 one which I want to emphasize is that of Canadian  
28 content in the actual pipe. Foothills is  
29 satisfied that all of its 42 inch pipe which is  
30 a size in use in many places now in Canada, can be



1 and will be supplied by Canadian manufacturers.  
2 I would like to add parenthetically here too  
3 that a recent development has been that our own  
4 Alberta Gas Trunk Compnay has placed and there have  
5 been accepted, orders now for the purchase of pipe  
6 of commercial runs of this pipe of exactly the  
7 size, the grade, wall thickness and all the specifications  
8 of the Arctic pipe proposed by Foothills from both  
9 Stelco and IPSCO, two of the large Canadian  
10 manufacturers of pipe for delivery this year, so  
11 that we'll be in the position of direct experience  
12 of bending, welding, field installation and even  
13 operating use of this pipe before it would be brought  
14 into the north. It is one of the variables that  
15 we propose thereby to make entirely secure.

16 The order for the northern  
17 pipe as a whole, I mean the big order for Foothills  
18 and for the expansion of the Canadian systems would  
19 represent a very large volume of business indeed  
20 for the Canadian manufacturers and will have a  
21 significant impact on terms of employment, and  
22 multiplier effect of spending in the communities  
23 where they are located.

24 The production, we have  
25 found can also be scheduled without disrupting  
26 supplies of other Canadian customers, that has  
27 been analysed. Alberta Gas Trunk will use some  
28 of the Foothills specification pipe in these years,  
29 as I have said, <sup>but</sup> with a little more detail than  
30 in this text.

In this and other ways



1 we are shaping up the Maple Leaf project to  
2 fit the capacities and desirable expansions of the  
3 Canadian manufacturers of all goods and  
4 services, to provide the long production runs  
5 and manageable expansions that are so much needed  
6 in Canadian industry.

7 In contrast, it appears  
8 to us that Arctic Gas is far out on a limb  
9 in supposing the availability of a class and design  
10 of line pipe never used nor in general commercial  
11 supply in North America. It is reported that  
12 Arctic Gas has commenced discussion on pipe supplied  
13 from Japan and intends such discussions in  
14 Italy and West Germany. These reports strengthen  
15 our speculation that the industry beneficiaries  
16 of the Arctic Gas project is certified may be  
17 foreign and that the Canadian firms trying to  
18 get established and strong may be out in the cold  
19 once again.

20 Q Do you have anything fur-  
21 ther to add, Mr. Blair, before the cross-examination  
22 commences?

23 A No, I do not.

24 Q Your answer was  
25 no?

26 A No.

27 MR. GIBBS: Mr. Commissioner,  
28 I have here copies of each of the first three slides  
29 which Mr. Blair referred to to be marked as exhibits,  
30 the fourth one which showed the spare capacity was



S.R. Blair  
In Chief

1 made up so recently that I don't yet have copies and  
2 perhaps I could provide those at some later time.

3 THE COMMISSIONER: Yes,  
4 certainly.

5 (SLIDE SHOWING EXISTING CANADIAN PIPELINE SYSTEMS  
6 MARKED EXHIBIT 218)

7 (SLIDE SHOWING CANDIAN ARCTIC GAS PROJECT MARKED .  
8 EXHIBIT 219)

9 (SLIDE SHOWING FOOTHILLS PIPE LINE PROJECT MARKED  
10 EXHIBIT 220)

11 (SLIDE SHOWING FUTURE AVAILABLE SPARE CAPACITY  
12 IN THE AGTL SYSTEM MARKED EXHIBIT 221)

13 MR. GIBBS: Then sir,  
14 Mr. Blair is available for cross-examination.

15 THE COMMISSIONER: Well,  
16 I think that we should adjourn until tomorrow  
17 and meet at nine tomorrow as we used to do and  
18 I think what we will do for the remainder of the  
19 week, that is, Tuesday, Wednesday, Thursday and  
20 Friday is to meet at nine each morning and sit  
21 in the morning and again in the afternoon and  
22 the Inquiry is scheduled to hold hearings in Trout  
23 Lake on Saturday and Nahanni Butte on Sunday, so  
24 the formal hearings would I think occupy us until  
25 Friday afternoon at any rate, and as we approach  
26 Friday afternoon, <sup>if</sup> counsel and witnesses and others  
27 want to make plans for reservations on Friday  
28 afternoon or Friday evening, they might speak to  
29 Mr. Scott and perhaps he can work out a plan agreeable  
30 to all concerned and then next Monday we would I



1 think likely return at one o'clock in the afternoon  
2 to start again.

3 So we will adjourn then.

4 (PROCEEDINGS ADJOURNED TO AUGUST 19, 1975.)  
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M835  
Vol. 56

Mackenzie Valley pipeline inquiry:

TITLE  
Vol. 56 18 August 1975

BORROWER'S NAME

SEP - 3 1975

SEP 26 1975

OCT 17 1975

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Vol. 56





IN THE MATTER OF APPLICATIONS BY EACH OF

- (a) CANADIAN ARCTIC GAS PIPELINE LIMITED FOR A RIGHT-OF-WAY THAT MIGHT BE GRANTED ACROSS CROWN LANDS WITHIN THE YUKON TERRITORY AND THE NORTHWEST TERRITORIES; AND
  - (b) FOOTHILLS PIPE LINES LTD. FOR A RIGHT-OF-WAY THAT MIGHT BE GRANTED ACROSS CROWN LANDS WITHIN THE NORTHWEST TERRITORIES
- FOR THE PURPOSE OF A PROPOSED MACKENZIE VALLEY PIPELINE

and

IN THE MATTER OF THE SOCIAL, ENVIRONMENTAL AND ECONOMIC IMPACT REGIONALLY OF THE CONSTRUCTION, OPERATION AND SUBSEQUENT ABANDONMENT OF THE ABOVE PROPOSED PIPELINE

(Before the Honourable Mr. Justice Berger, Commissioner)

Yellowknife, N.W.T.,

August 19, 1975.

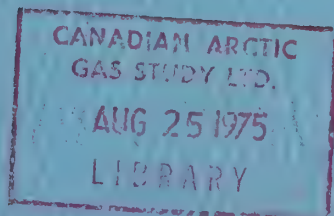
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PROCEEDINGS AT INQUIRY

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APPEARANCES:

1		
2	Mr. Ian G. Scott, Q.C.	
3	Mr. Stephen T. Goudge,	
4	Mr. Alick Ryder and	
5	Mr. Ian Roland	for Mackenzie Valley
6		Pipeline Inquiry;
7	Mr. D. M. Goldie, Q.C.	
8	Mr. Jack Marshall,	
9	Mr. Darryl Carter, and	
10	Mr. John Steeves	for Canadian Arctic Gas
11		Pipeline Limited;
12	Mr. Reginald Gibbs, Q.C.	
13	Mr. Alan Hollingworth	for Foothills Pipelines
14		Ltd.;
15	Mr. Russell Anthony,	
16	Prof. Alastair Lucas	
17		for Canadian Arctic
18		Resources Committee;
19	Mr. Glen W. Bell and	
20	Mr. Gerry Sutton	for Northwest Territories
21		Indian Brotherhood and
22		Metis Association of the
23		Northwest Territories;
24	Ms. Leslie Lane	for Inuit Tapirisat of
25		Canada and the
26		Committee for Original
27		Peoples' Entitlement;
28	Mr. Ron Veale and	
29	Mr. Allen Lueck	for the council for the
30		Yukon Indians
31	Mr. Carson H. Templeton	for Environment Protect-
32		ion Board;
33	Mr. David Reesor	for Northwest Territories
34		Association of Muni-
35		cipalities
36	Mr. Murray Sigler	for Northwest Territories
37		Chamber of Commerce

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I N D E X

Page

WITNESSES FOR FOOTHILLS GAS PIPE LINES LTD.

S.R. BLAIR

- Cross-Examination by Mr. Goldie

7948



1 Yellowknife, N.W.T.,

2 August 19, 1975.

3 (PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

4 MR. SCOTT: Mr. Commissioner,

5 I think we are ready to proceed. I may say I have spoken  
6 to Mr. Gibbs. As all participants know, he has been  
7 compelled to proceed with his evidence in chief on  
8 rather short notice, and as a result there has been a  
9 tolerance of his, I was going to say abuse -- that  
10 isn't the word -- inability to comply with the  
11 advance summaries. He indicated, however, that he  
12 will try and let us know today at least the subject  
13 matter of the succeeding panels and the order in which  
14 he anticipates they will be called, so they can be  
assured the personnel for the appropriate panel are  
available and on deck, by the end of the day perhaps.

15 (PROCEEDINGS ADJOURNED DUE TO TECHNICAL  
16 DIFFICULTIES)

21 (PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)



1 CROSS-EXAMINATION BY MR. GOLDIE:

2 Q Mr. Commissioner, I  
3 find it more convenient to speak when I am discussing  
4 Mr. Blair's evidence with him so that I am not  
5 standing in my friend's way I wonder if it would  
6 be all right if I sit over at the back there.

7 Mr. Blair, I propose  
8 discussing with you only so much of your evidence  
9 that appears to be relevant here and I realize that  
10 that is not an easy line to define and I will have  
11 to ask you to bear with me if I appear to be getting  
12 into areas which you think should be reserved  
13 for other places.

14 THE COMMISSIONER: Excuse  
15 me, Mr. Goldie, so that there is no further difficulty,  
16 we want to make sure the court reporters get this  
17 down which means you have to be within hailing  
18 distance of the microphone.

19 Carry on then, don't let me bother you.

20 MR. GOLDIE: Hailing or  
21 raining.

22 Q Now, do you have your  
23 evidence in front of you, Mr. Blair?

24 A Yes.

25 Q On page 5, paragraph  
26 one, and these are just some minor matters that I  
27 ask you to help me with, you say in the last two  
28 sentences, and I quote:

29 "So we asked if we could participate  
30 in the Northwest Project Study Group



S.R. Blair  
Cross-Exam by Goldie

1 organization"

2 "We" there refers to whom, please?

3 A The Alberta Gas Trunk  
4 Line Company as an organization.

5 Q Westcoast was not a part  
6 of the group at that point?

7 A No.

8 Q It was part of a rival  
9 group, was it?

10 A Yes, I think that's  
11 right, I think that in 1970 -- I am not sure, --  
12 I am not sure when the Mountain Pacific group  
13 was organized. I believe it did exist in 1970.

14 Q In any event Westcoast  
15 at one time was a part of the Mountain Pacific group  
16 which had for its aim, what?

17 A Well, I hesitate, because  
18 not having been a party, I had only a superficial  
19 knowledge of their activities, but as well as I can  
20 remember, they were studying and proposing a pipeline  
21 system to bring gas from Alaska, from Prudhoe Bay  
22 source, down a route similar to the present route  
23 of the Alyeska pipeline that's actually being used  
24 by the Alyeska oil pipeline to a point about  
25 Fairbanks, delivering gas in Fairbanks and then  
26 striking southeastward approximately along the line  
27 of the Alaskan Highway past Whitehorse and down  
28 to a point I believe west of Fort St. John and then  
29 continuing down interior valleys of British  
30 Columbia to the international boundary in the vicinity of



S.R. Blair  
Cross-Exam by Goldie

1 Kimberley I believe. There were different routes  
2 described at the time, this is quite a few years  
3 ago --

4 Q I am not too interested  
5 in the routes, thank you. I just wanted to know  
6 what its purpose was and I think you have  
7 described that.

8 Now, that is the group  
9 that is mentioned at the bottom of page 10 of your  
10 evidence? The last paragraph?

11 A Yes, it is.

12 Q And that group consisted  
13 of Westcoast, El Paso and Pacific Light, is that  
14 correct?

15 A No. Again, as well as  
16 I can remember it consisted of Westcoast, Bechtel  
17 Coporation, Southern California Edison, and Pacific  
18 Lighting, also Pacific Lighting left that group  
19 subsequently and joined the Gas Arctic System Study  
20 Group in 1971, I believe.

21 Q And joined the  
22 Arctic Gas Study Group on merger and is there  
23 still, is that correct?

24 A Yes.

25 Q All right, now  
26 you mentioned --

27 A I am not sure if I  
28 gave you the complete list. You asked me about  
29 Pacific Lighting before I was finished.

30 Q I see, right. Carry on.



A It seems to me there

Q Going back to the

A The main request occurred

Q All right, but as you

A No, I didn't say that.



1 At that stage, as I remember the three Alaskan producing  
2 companies were in the process of joining the Northwest  
3 Project Study Group and firming up its membership  
4 of six companies and I believe that our group was  
5 still just getting together informally perhaps on  
6 the basis of some memoranda, but not with a study  
7 group agreement at that stage, we were still  
8 in the informative period.

9 Q Now, the point being  
10 that "our group" was AGTL and CNR or or AGTL and  
11 CNR plus one or two others or what? Whether it  
12 was informally brought together or not, what do you  
13 mean by "our group?"

14 A Well, it was obviously  
15 the companies which became the Gas Arctic Systems  
16 Study Group which were AGTL, CN, Northern Natural,  
17 Columbia Gas, Texas Eastern Transmission Company,  
18 and Pacific Lighting, I am fairly sure, would not have  
19 been represented at that stage because they  
20 were the last company to join the group, and also  
21 it is of interest to know the particulars, I am  
22 not certain that the CN, -- I just don't  
23 remember whether or not the CN would have attended  
24 those discussions as a participant because the  
25 relationship between Alberta Gas Trunk Line and the  
26 CN was one rather separate from the relationship  
27 with the U.S. utility companies and we would often  
28 meet separately, so they weren't necessarily  
29 represented in all the same meetings.

30 Q Well, I don't want



1 to distract you, but I am directing your attention  
2 to the time that this request was made and we are  
3 endeavoring to bring this down to as much certainty  
4 as we can, given the fact that it occurred some years  
5 ago.

6 Now, perhaps I can get at it  
7 this way, was this request made  
8 before or after the Gas Arctic Systems Group  
9 was founded?

10 A Oh, definitely. Our  
11 request to join the Northwest Project Group  
12 were definitely before the Arctic Gas Group was founded  
13 because -- the Gas Arctic Systems Study Group  
14 was founded -- because we only went into that  
15 study group as I have said here, learning -- as I  
16 have said in the direct testimony -- that we could  
17 not get into the Northwest Project Group. So  
18 certainly the sequence of interviews expressing  
19 Alberta Gas Trunk's interest in participation  
20 of the Northwest Project Study Group, I am positive  
21 occurred clearly before the formation of the  
22 Gas Arctic Systems Study Group.

23 Q So that in Chicago, where,  
24 as you put it, this main request was made, you were  
25 accompanied by people who subsequently became members  
26 of the Gas Arctic Group, can we put it that way?

27 A Yes.

28 Q And the, if I may put  
29 it this way, the point of view that was expressed  
30 which was interpreted on the part of you and your



S.R. Blair  
Cross-Exam by Goldie

1 colleagues as a refusal to join in the studies, was  
2 one that was directed to you and the other companies  
3 that were informally grouped with you at that time.

4 A I am not quite sure if  
5 I have got whatever tense they are working on here  
6 I am not quite sure of your timing.

7 Q We are at the meeting  
8 in Chicago, are we agreed on that?

9 A Yes.

10 Q And the meeting  
11 in Chicago preceded the formation, in a  
12 formal way, the Gas Arctic Systems Project, are  
13 we agreed on that?

14 A No, I want to go back  
15 to the meeting in Chicago here, because you are  
16 asking me about things many years ago and I hadn't  
17 particularly researched those meetings

18 First, I think that the  
19 meeting that I first referred to, I think I was  
20 mistaken, I think it was in Cleveland. I think  
21 that we were in -- we had gone to a meeting that  
22 was based in the offices of the Standard Oil of  
23 Ohio -- Sohio, and that the other members were  
24 convened there. We were told that was the place  
25 we might see them, that was the place that we  
26 applicants for admission might see the members  
27 because they were convened there in the offices  
28 of Sohio. There were meetings in Chicago in the  
29 same months and I think though, that one  
30 was in Cleveland.



S.R. Blair  
Cross-Exam by Goldie

1 Q All right, it doesn't  
2 really matter whether it is Cleveland or Chicago.  
3 What I am endeavoring to elicit from you is an  
4 explanation of the statement that you made in your  
5 evidence and I again quote: "So we asked if we  
6 could participate in the Northwest Project Study Group  
7 organization." Now, you have identified the  
8 place of the main request as now being Cleveland and  
9 as I say, that's not material, and you have identified  
10 the request as coming, if I understood you correctly  
11 and you correct me if I am wrong, as coming from  
12 AGTL and informally grouped with AGTL in this  
13 request was some other companies.

14 A Yes, that's as well  
15 as I remember it. When you asked me about when,  
16 to whom we put in this request, I was trying to  
17 focus on one particular moment in a whole lot  
18 of discussions and choose it as the right way  
19 to answer you, but I think that it would be well  
20 to bring out that as well as meetings of that kind,  
21 I mean of the kind where several of we companies  
22 who were not getting into the Northwest Project  
23 Group and later subsequently decided to form our  
24 own study group so that we would have a seat at the  
25 table, in addition to that there were representations  
26 from Alberta Gas Trunk Line Company to TransCanada  
27 Pipeline Company saying that we would like to work  
28 in this too, because as I said right beginning in  
29 December 1969 we thought this was going to be  
30 a big and important, something of this kind was going



S.R. Blair  
Cross-Exam by Goldie

1 to occur, it was going to be big and important  
2 and we wanted to be a part of it.

3 Q Well, you have told  
4 me about your discussion with Mr. Horte, or discussions  
5 with Mr. Horte of TransCanada Pipelines, but I think  
6 you have identified this meeting in Cleveland as  
7 being the place of the main request and we have  
8 it from you that you were there with some other  
9 people and I put it to you that the -- when your request  
10 was declined it was addressed to the group of you,  
11 AGTL, Pacific Lighting and whatever others became  
12 subsequently Gas Arctic Systems Project. Isn't  
13 that right?

14 A Well, yes, I think that's  
15 what we are saying.

16 Q All right, fine.  
17 Now these meetings took place prior to June of 1970?  
18 As best as you can now place it?

19 A I think you are  
20 pretty close one way or the other with June and so  
21 I don't -- I haven't looked up which month.

22 Q Well, I pick that date  
23 because wasn't June the 29th the date of the formal  
24 association of the companies that were known as  
25 the Gas Arctic Systems Project?

26 A I don't know.

27 I don't know exactly. We  
28 have all this on records, I just haven't got all  
29 the records up here.

30 Q Yes, well, I am just



S.R. Blair  
Cross-Exam by Goldie

1 trying to elicit or clarify your evidence in chief.  
2 Now, on page nine following the last recital  
3 of the agreement with the C.N.R., you say;"in 1970  
4 we also recruited into the Gas Arctic Systems Study  
5 Group four of the larger U.S. gas transmission/  
6 distribution companies." And those were the four  
7 companies that were, as it were, associated  
8 with you in this request that was made earlier,  
9 the existing study group.



S.R. Blair  
Cross-Exam by Goldie

1                   A     No, when I answered you  
2 on that a few minutes ago I said Pacific Lighting would  
3 not have been represented at that time because they  
4 came in later.

5                   Q     All right, thank you.

6                   A     So I think if you read  
7 that sentence, I'd have to say we were sort of beginning  
8 to recruit Pacific Lighting in 1970, but I think they  
9 didn't actually join until about sometime in '71; and  
10 each company joined at a separate time, that's the  
11 reason I didn't want to confirm that June 29th, 1970  
12 to you because I think there were actually a sequence  
13 of additional members, each with a date of entry.

14                  Q     Well then, the statement  
15 in your evidence which reads, and I quote:

16                  "In 1970 we also recruited,"  
17 you think might include 1971 so far as it relates to  
18 Pacific Lighting. Is that your recollection now?

19                  A     No, it depends which way  
20 you read the word "recruit". If you take from that  
21 the final moment of executing a document, it would have  
22 to include '71, but I don't think it has to be taken  
23 that way. We were meeting these people in '70.

24                  Q     Yes.

25                  A     As I remember, both of  
26 those groups sort of emerged over a period of some time  
27 and they emerged from an early exchange of memoranda  
28 to more formal agreements, and then finally to the  
29 execution of delivery of one general agreement.

30                  Q     Well, giving this word



S.R. Blair  
Cross-Exam by Goldie

1 "recruiting" the gradual sense that you have described,  
2 would you agree with me that there evolved a full  
3 membership of the Gas Arctic Systems project for these  
4 four companies?

5 A Yes.

6 Q And they were present at  
7 and participated in the decisions of the Study Group  
8 which molded the design, location and timing and other  
9 policies adopted by the Study Group?

10 A Yes. The basic answer is  
11 "Yes" but with this qualification, that in this Study  
12 Group the decisions on the management of the Canadian  
13 portion of the project were reserved for the leadership,  
14 sponsorship of the two Canadian member companies and  
15 the relationship with the four United States-based  
16 companies was as customers, not as co-owners or co-  
17 managers.

18 Q Nevertheless, your basic  
19 answer, you said a minute ago, was "Yes." They were  
20 present at and participated in the decisions of the  
21 Study Group which molded the design, location, timing,  
22 and other policies of that group. You agree with that?

23 A Yes, I said, "Yes."

24 Q And they were accordingly  
25 present at and exercised an influence at the period that  
26 you refer to on page 5 in the second paragraph -- I'm  
27 referring to the last sentence of the second paragraph  
28 where you say, and I quote:

29 "It can be of little attraction to participate  
30 as an investor or as a connecting facility late



S.R. Blair  
Cross-Exam by Goldie

1 in the day in some project which has been molded  
2 as to design, location, timing and other policies."  
3 So they were present during that important period.

4 A You must have said page 25,  
5 did you?

6 Q I'm sorry, page 5 of your  
7 evidence, the second paragraph.

8 A Oh, I see, Yes.

9 Q And all of these companies  
10 which are listed, Columbia Gas, Northern Natural,  
11 Texas Eastern, and Pacific Lighting, subsequently became  
12 members of the Arctic Gas Study Group.

13 A Through the merger, yes.

14 Q And they are still there.

15 A I'm not sure, I can't  
16 remember having seen any one of those four resign.

17 Q You keep track of that  
18 sort of thing, don't you?

19 A Not as closely as I might.  
20 I'm surprised sometimes by hearing that someone left a  
21 few months ago and I didn't realize it.

22 Q Now, the agreement that  
23 these companies entered into with A.G.T.L. and C.N.R.,  
24 which was the agreement, as I understand your evidence,  
25 which governed the relationship of the Gas Arctic  
26 Systems project, contemplated that such transmission  
27 companies -- and I'm referring to the four American  
28 companies -- might acquire gas in Canada for export.  
29 Is that correct?

3 A I don't remember. It may well



S.R. Blair  
Cross-Exam by Goldie

1 have done that. It would have been, I think, appropri-  
2 ate at the time, if it had. If you've examined it  
3 and found that clause, I just don't have it here with  
4 me.

5 Q Well, don't take my word  
6 for it, look at page 10 of your evidence. At the top  
7 of the page, which is a quotation from the Gas Arctic  
8 System Study Group agreement, which begins on page 9,  
9 contains these words, and I quote:

10 "Gas Arctic will,"

11 "Gas Trunk,"

12 I beg your pardon,

13 "will, however, if any project is consummated,  
14 use its best efforts, if Study Group so elects,  
15 to arrange to have transported to the extent  
16 legally and practically possible, gas to the  
17 Study Group member in Canada."

18 Now the only Study Group members who own gas in Canada  
19 were the four U.S. transmission companies. Right?

20 A No. I don't think you're  
21 right to put it that way. I don't remember if some  
22 of them owned any gas in Canada, and it doesn't  
23 necessarily follow that the other Study Group members  
24 would not own gas in Canada; but I'm not -- I'm just  
25 being precise in answering your question, I don't argue  
26 but what this, like I said in my first answer to you,  
27 might have well anticipated that they might buy some  
28 gas in Canada. In that period it was expected that  
29 that's what would happen, and we knew that they were  
30 at least negotiating for gas in the Arctic Islands.



S.R. Blair  
Cross-Exam by Goldie

1 Q At that time --

2 THE COMMISSIONER: Excuse me,  
3 Mr. Goldie. Do you mind repeating that? It was  
4 anticipated then that members of your group might buy  
5 Canadian gas for delivery to U.S. customers, is that  
6 what we're talking about?

7 A Yes.

8 MR. GOLDIE: Not only in Alaska  
9 but in Canada, to the extent that such gas were surplus  
10 to Canada's needs.

11 A Yes.

12 Q Now, at that time there  
13 was very little gas in the delta, am I right in that?

14 A Yes.

15 Q So that the main source  
16 of gas for this -- that this Study Group was looking  
17 at was Alaska gas and any additional sources that might  
18 be found in the conventional areas of Canada, that is  
19 to say the Western Canada Sedimentary Basin in Alberta,  
20 in Northern British Columbia, the southern Northwest  
21 Territories.

22 A Would you mind repeating  
23 that? I got a little confused with what you were asking.

24 Q Well, perhaps if I go  
25 back a further step, and I think you agreed with me  
26 that at that time there was little, if any, delta  
27 gas discovered.

28 A Yes.

29 Q So that the main source  
30 of gas --



S.R. Blair  
Cross-Exam by Goldie

1 A Yes sir.

2 Q -- this group was looking  
3 at was Alaskan --

4 A Yes.

5 Q -- and gas in the Western  
6 Sedimentary Basin, the conventional producing areas in  
7 Canada.

8 A Yes, there was a time  
9 also when recognition of the very considerable potential  
10 for future reserve development in the Western Canadian  
11 Arctic as well as on the United States side in the  
12 Beaufort Basin, but in terms of presently identified  
13 reserves, I agree that sources are those which you  
14 have described.

15 Q And apart from these  
16 prospects in Canada's western frontier regions, the  
17 reserved in the frontier were in Alaska. I'll rephrase  
18 my question because I think it's simply another way of  
19 getting at the point that you mentioned a minute ago,  
20 that the only frontier reserves were in Alaska at that  
21 time.

22 A The only substantial fron-  
23 tier proven reserves were in Alaska. There were some  
24 gas discoveries in Western Canada, and I assume we are  
25 talking only here about the Mackenzie Valley-Beaufort  
26 Basin as a basic supply area. Some of your questions,  
27 if I was being literal in answering them, I'd have to  
28 cover the Arctic Islands too, but I suppose you're not  
29 particularly referring to them.

30 Q Well, to ease everybody's



S.R. Blair  
Cross-Exam by Goldie

1 minds, from now on we'll put the Arctic Islands to one  
2 side. The discoveries in the Beaufort Basin, were  
3 there discoveries of gas at that time, to your recollec-  
4 tion?

5 THE COMMISSIONER: Excuse me,  
6 just to ease my mind and make sure we 'all understand  
7 each other, Beaufort Basin, do you mean that includes  
8 the Mackenzie Delta?

9 MR. GOLDIE: Yes, I appreciate  
10 your concern, Mr. Commissioner. That's a term, if  
11 I understand it, which has come into more recent use,  
12 covering not only the Mackenzie Delta but the shallow  
13 offshore prospects of the Beaufort Sea.

14 Q Is that your understanding,  
15 Mr. Blair?

16 A Yes.

17 Q Well, the exploration  
18 activity in the Mackenzie Delta-Beaufort Basin area,  
19 and so far being onshore, and so far being at the time  
20 we're speaking of, say 1970?

21 A I'd really have to go  
22 back and review the history of this. I don't remember  
23 right at the moment what particular events occurred in  
24 '70 and what occurred in '71. I don't think you're  
25 correct in the way you said it just now because in  
26 terms of exploration activity, seismic exploration  
27 activity, I'm sure that there have been considerable  
28 in offshore as well as on the mainland in about that  
29 period; but when each exploratory well was drilled,  
30 when they first discovered gas, I don't remember exactly.



S.R. Blair  
Cross-Exam by Goldie

1 I remember that as we used to fly up into and over that  
2 area in 1970, which we did considerably, that -- and  
3 '71 -- that there were exploration drilling rigs at  
4 work and I just haven't memorized the chronological  
5 order of development of that area. But it certainly was  
6 very young and a very new area in the early 1970's.

7 Q Well, the main focus of  
8 the Gas Arctic Systems' promotion was on Alaska, so far  
9 as frontier gas was concerned.

10 A Yes, it was, and at the  
11 beginning it was, yes.

12 Q At page 11 you note that  
13 upon the merger of the two study groups-- and this is  
14 up in the first third of the first paragraph, you note  
15 that a merger occurred in June of 1972, and you note  
16 that as well that the original companies of each group  
17 and a half-dozen other companies joined at that time,  
18 and then about half-way down the page you say:

19 "Other participants included the three main  
20 distribution companies in Ontario."

21 What companies are you referring to there, please?

22 A Union Gas, Consumers  
23 Gas, and what was then called Northern & Central Gas  
24 Company.



S.R. Blair  
Cross-Exam by Goldie

1 Q And Northern & Central's  
2 affiliate or a subsidiary of Gaz Metropolitan,  
3 is the the only distribution company in Quebec?

4 A Certainly the only one  
5 of substantial size.

6 Q And bearing the same  
7 relationship to Northern & Central is the principal  
8 distribution company of Manitoba, Greater Winnipeg,  
9 is that correct?

10 A You mean the relationship  
11 of a subsidiary to Northern & Central?

12 Q Yes.

13 A Yes, it's substantially  
14 or wholly owned by Northern & Central.

15 Q Yes, and all of these  
16 companies and all of these -- by "all of these" I mean  
17 Union Gas, Consumers Gas and Northern & Central agreed  
18 with the Arctic Gas concept and supported the efforts  
19 to achieve that.

20 A Again we're not quite  
21 together on tense here. Well, all three are members  
22 and as far as I am aware are in agreement with the  
23 Arctic Gas concept. What I mean about tense is you  
24 are talking about the time when they joined the merged  
25 Study Group.

26 Q Oh yes, O.K.

27 A Yes, that's right.

28 Q And they represent the  
29 interests of the consumers of natural gas in Manitoba,  
30 Ontario and Quebec.



S.R. Blair  
Cross-Exam by Goldie

1                                   A     It would depend on who  
2 is interpreting the interests of consumers of natural  
3 gas. There's certainly the distribution companies that  
4 supply the areas, the service company I don't think I could  
5 allege that we should be thought of as representing the  
6 interests of the consumers necessarily, perfectly all  
7 of the time.

8                                   Q     Well, you know what I'm  
9 talking about, a distribution company undertakes to  
10 provide a service to a customer who wants gas where and  
11 when he wants it.

12                                  A     Right.

13                                  Q     And such companies are  
14 interested in seeing that the costs of transportation be  
15 kept down.

16                                  A     Of transportation by  
17 other companies be kept down, certainly.

18                                  Q     Yes, I mean in your  
19 experience you have seen interventions by distribution  
20 companies in the rate proceedings of transmission  
21 companies, haven't you?

22                                  A     Yes.

23                                  Q     And they have the same  
24 interest in that regard as producers.

25                                  A     Not identically. In the  
26 general sense that they -- well, no, I would say they  
27 do not have exactly the same interests as producers,  
28 and --

29                                  Q     I'm sorry, I didn't suggest  
30 the same interests. They have the same interests in



S.R. Blair  
Cross-Exam by Goldie

1 keeping down the costs of transporting natural gas.

2 A I'd say generally so, yes.  
3 But "by others", the cost of transporting by others.

4 Q I beg your pardon?

5 A The costs -- they have an  
6 interest in keeping down the cost of other companies  
7 transporting natural gas.

8 Q Yes, in other words they  
9 have an interest in ensuring that the gas is delivered  
10 to their city gate for as low a price as possible. Is  
11 that right?

12 A Generally so, yes.

13 Q These companies that we  
14 have identified, Northern & Central, Union and Consumers,  
15 are independent Canadian companies?

16 A Yes.

17 Q And they accordingly in  
18 terms of the interests they have, such interests are  
19 absent from the Foothills group at the present time?

20 A I don't think the interests  
21 -- the way you were using the word "interests" in the  
22 previous questions, I don't think it's absent, but they  
23 are not members of Maple Leaf project at this time.

24 Q Is there anybody who is  
25 a member who has the same interest in keeping the cost  
26 of transportation down?

27 A Well, the two sponsor  
28 members of Foothills have, they are members of the  
29 same industry and have a corresponding interest. Yes,  
30 so the answer is "Yes, very much so."



S.R. Blair  
Cross-Exam by Goldie

1 Q You have identified those  
2 two companies as being two of the premier transmission  
3 companies in Canada?

4 A Yes.

5 Q I suggest to you that  
6 that is not the same thing as representing the consumer  
7 interest in transportation costs.

8 A Well, I suggest to you  
9 that it is, in my view, the same thing. I don't see  
10 any fundamental difference between the interests of  
11 the transmission company or the interests of the dis-  
12 tribution company in this connection.

13 Q Really?

14 A Yes.

15 Q Now, this group -- and  
16 we'll call them the Canadian non-producer group --  
17 do you recognize that phrase?

18 A I know it's kind of  
19 an amusing phrase to me.

20 Q Which would you prefer,  
21 the Canadian distribution group.

22 A Well, I have no preference.  
23 I know who you mean.

24 It was a technical label  
25 that was applied to part of the membership of the Arctic  
26 Gas group.

27 Q And they consisted of  
28 independent Canadian companies.

29 A No, not entirely.  
30



S.R. Blair  
Cross-Exam by Goldie

1 Q You tell me who is not an  
2 independent Canadian company in the Canadian non-producer  
3 group. The Canada Development Corporation?

4 A Alberta Natural Gas Company  
5 is one. I'm trying to think of who they are and who  
6 is still there.

7 THE COMMISSIONER: Alberta Nat-  
8 ural Gas is one that you wouldn't call an independent  
9 Canadian company.

10 A That's correct.

11 Q It's a subsidiary of a  
12 U.S. company, isn't it?

13 A Yes, it is.

14 MR. GOLDIE: It's a transmission  
15 company, isn't it?

16 A Mostly, it has one process-  
17 ing plant too, but it's mostly a transmission company.  
18 I'm trying to remember who is left in that group and  
19 I remember Union Gas, Consumers, Northern & Central,  
20 Canada Developm ent Corporation, TransCanada Pipelines,  
21 Alberta Natural Gas Company. If that is the roster  
22 now, then --

23 Q Then Alberta Natural Gas  
24 is the one that you'd exclude.

25 A Yes.

26 Q All right. That group,  
27 as a group certainly doesn't agree with the views that  
28 you have expressed on page 13, paragraph 3, and so that  
29 you know precisely what the reference is, you state:

30 "Our judgment that Arctic Gas is pursuing too



S.R. Blair  
Cross-Exam by Goldie

1 much the purposes of the original Northwest  
2 Project Study Group's desires to create an  
3 internationally owned and wholly new express  
4 line across Western Canada, and was doing so  
5 too much for the special purpose and under  
6 the influence of U.S. Companies."

7 Now the Canadian non-producer group didn't agree with  
8 that, did it?

9 A I couldn't agree with you.  
10 I don't know whether they agreed with that or not.

11 Q Well, you canvassed the  
12 members of that group, didn't you, at the time you  
13 withdrew?

14 A Yes, in the sense of  
15 informing them about our intentions and our reasons.  
16 Oh, some of them individually. We certainly told all  
17 of the members of the group, of the whole group in their  
18 General Meeting what our reasons were for withdrawal,  
19 and we discussed the matter separately with a number  
20 of the members, if that's what you meant by "canvassing",  
21 yes.

22 Q Yes. Well, my point  
23 Mr. Blair, is that those companies have remained a part  
24 of the Arctic Gas project and have not joined the  
25 Foothills project, have they?

26 A Well, obviously if what  
27 I just gave you was their list is correct, which then  
28 obviously in the face of it that is so; but that is  
29 not the same thing as saying they didn't -- there is  
30 not agreement with some of our judgments amongst some of



S. R. Blair  
CrossExam by Goldie

1 them. I don't know to what degree there is not such  
2 agreement at this stage.

3 Q No, you do not know,  
4 although you made it a point in May of 1974 of canvass-  
5 ing each of these people to let them know what your  
6 point of view was.

7 A Well, of course we were  
8 working together at the time and had come to explain  
9 why we didn't want to work in that particular setting  
10 any longer.

11 Q I'll come to that in a  
12 minute then.

13 THE COMMISSIONER: Whatever the  
14 extent to which they shared your convictions, it didn't  
15 move them to leave the old group and join yours.

16 A That is correct, yes.

17 MR. GOLDIE: Q Now, the  
18 trunk line is primarily a gathering system within the  
19 Province of Alberta, for the purpose of transmitting  
20 gas produced in that province to points of use within  
21 the province and for delivery to the interprovincial  
22 and international pipelines.

23 A Well, that's not the way  
24 I'd describe my own company, but what you say is part  
25 of what the Alberta Gas Trunk Line Company is and is,  
26 I think, a reasonably correct way of summarizing its  
27 gas-gathering service operation. You put more emphasis  
28 on mainly gathering. I'd say transmission at least  
29 as much as gathering.  
30



S.R. Blair  
Cross-Exam by Goldie

1 Q Well, transmission --  
2 well, first the gas has to be gathered from the  
3 fields and you undertake that service, do you  
4 not?

5 A Yes, do you want me  
6 to tell you what we do?

7 Q No, I'll ask the  
8 questions.

9 A Well, that 's one of  
10 the things we do is gather the gas from the field.

11 Q Well, I should tell  
12 you this, that I am not going to go into the  
13 activities of Alberta Gas Trunk and the production  
14 of petrochemicals and things like that. I am  
15 directing your attention to its gas gathering and  
16 transmitting activities and you can be quite assured  
17 that I am not attempting to downgrade the petrochemical  
18 and allied activities or the gasline activities or  
19 things of that order.

20 But in order to gather  
21 the gas from the fields you use a multitude of  
22 pipe sizes, well -- perhaps multitude is an exaggera-  
23 tion -- but you use a variety of pipe sizes.

24 A Yes, we do.

25 Q Down to say, three  
26 inch?

27 A Yes.

28 Q And then you carry that  
29 gas from the fields in increasingly larger pipe sizes  
30 for delivery to points of use within Alberta, is



S.R. Blair  
Cross-Exam by Goldie

1 that correct?

2 A Yes, in part.

3 Q You don't distribute  
4 gas in Alberta, do you?

5 A Not in any major way.  
6 We make some small off line deliveries of gas in  
7 the province, but we are not a distribution company.

8 Q Well, the major  
9 distribution is undertaken by distribution companies.

10 A Yes.

11 Q But the major deliveries  
12 are to TransCanada Pipelines at Empress?

13 A Yes.

14 Q And Alberta Natural  
15 Gas at coleman?

16 A Yes, those are the two  
17 largest points of delivery.

18 Q And I notice that you  
19 do not mention Alberta Natural Gas in your reference  
20 to the major transmission companies of Canada,  
21 was that an ommission or deliberate?

22 A It was not an ommission.  
23 It is not a major transmission company.

24 Q Although it is one  
25 of the major customers of Alberta Gas Trunk?

26 A No, it is not a customer  
27 of Alberta Gas Trunk.

28 Q I beg your pardon?

29 A I said it is not a  
30 customer of ALberta Gas Trunk.



1 Q Its parent company,  
2 or affiliated company, Alberta and Southern is a customer  
3 of Alberta Gas Trunk, is that right?

4 A Yes, and it is not the  
5 parent company of ALberta Natural Gas Company.  
6 Alberta and Southern Gas Company is a wholly owned  
7 subsidiary of Pacific Gas and Electric Company of  
8 California and Alberta Natural Gas Company is a  
9 majority controlled -- I think I misspoke that because  
10 I don't think it is majority controlled now, but the  
11 ownership direction control effectively resets with  
12 Pacific Gas Transmission Company which is majority  
13 owned by Pacific Gas and Electric, the same  
14 Pacific Gas and Electric Company.

15 Q Well, before we get  
16 back into that -- Alberta and Southern buys gas in  
17 Alberta and you transport it?

18 A Yes.

19 Q And you transport it  
20 to a point of delivery .or interconnection with  
21 Alberta Natural Gas?

22 A Most of it.

23 Q Yes, and then Alberta  
24 Natural Gas carries it across the B.C./Alberta  
25 border, delivers some within British Columbia  
26 and delivers the balance at the border.

27 A At the international  
28 boundary.

29 Q At the international  
30 border. Yes, right.



1 A Now, when I said most  
2 of it just now, in case that was obscure I meant  
3 that other gas that Alberta and Southern purchases  
4 and which we transport within Alberta is delivered  
5 similarly at an export point in Montana.

6 Q Yes.  
7 That's a relatively small  
8 amount.

9 A Well, yes, it is  
10 somewhere over 10%, as I recollect.

11 Q And what is the total  
12 delivery daily to Alberta Natural Gas?

13 A Somewhat over 1 billion  
14 cubic feet a day.

15 Q That is a major under-  
16 taking, is it not, to carry a billion cubic feet  
17 of gas a day?

18 A Yes, it is.

19 Q So your exclusion of  
20 Alberta Natural Gas from your list of transmission  
21 companies is based on what? The distance over which  
22 it travels?

23 A Well, just size -- just  
24 size of the operation. It's a very small pipeline  
25 operation relative to the three major gas transmission  
26 companies.

27 Q It carries about the same  
28 amount as Westcoast, doesn't it?

29 A Yes, in terms of cubic  
feet a day, but it carries it for a very short distance,  
it has just a couple of compressor stations



S.R. Blair  
Cross-Exam by Goldie

1 and 107 miles of pipe with a little bit of  
2 loop added to some of it.

3 Q No matter in how offhand  
4 a way, it still carries about the same amount of gas  
5 as Westcoast?

6 A I said yes.

7 Q So the reason that you  
8 are excluding it from your list is because of the  
9 distance that it carries?

10 A Well, yes -- the  
11 reason I excluded it from the list is because it  
12 is small and it's small because it doesn't go  
13 very far and the reason I exclude it from my list  
14 though is because if you asked, I think, most anyone,  
15 who the three big pipeline gas transmission companies  
16 in Canada were I doubt if anyone would include  
17 Alberta Natural.

18 Q Well, it is big  
19 enough to have a very substantial Canadian ownership,  
20 isn't it?

21 A Well, it has for  
22 its size a substantial Canadian ownership which  
23 I believe is now give or take just around the  
24 50% mark. I forget just exactly what they have  
25 done about that.

26 Q And incidentally this  
27 pipeline carries all of Westcoast's gas which  
28 is exported at Kingsgate, is that correct?

29 A Yes.

30 Q At page nine--



S.R. Blair  
Cross-Exam by Goldie

1 THE COMMISSIONER: Just  
2 so I don't miss the thrust of this, is Alberta Natural  
3 Gas part of the Arctic Gas Group?

4 MR. GOLDIE: Yes, it is,  
5 Mr. Commissioner. Which may account for its unimpor-  
6 tance in the eyes of the witness.

7 Q At page nine, Mr. Blair,  
8 you were asked to question -- I am sorry, it is  
9 page three. You were asked to identify the other  
10 two major pipeline systems. Perhaps our whole  
11 discussion got off on the wrong point about Alberta  
12 Natural Gas, because I see it was my learned friend  
13 who suggested there were three major Canadian  
14 gas transmission systems.

15 MR. GIBBS: I didn't think  
16 107 miles was very important.

17 MR. GOLDIE: No, I didn't  
18 think you would. But I am surprised that Mr. Blair  
19 who spent ten years working for them agreeing with  
20 you.

21 Q Now, at page three,  
22 you were asked a question about TransCanada, or  
23 really the three systems. The question was, what  
24 role did the three systems play in the Maple Leaf  
25 Project?

26 Now, that immediately succeeds  
27 an answer in which you identify or make reference  
28 to TransCanada and I don't see any reference to  
29 TransCanada in your answer, but I just wanted to  
30 explore with you something about TransCanada, it is



S.R. Blair  
Cross-Exam by Goldie

1 of course the major pipeline in Canada?

2 A Yes, certainly  
3 the major gas transmission pipeline and I believe the  
4 largest pipeline of any sort.

5 Q And it serves in that  
6 capacity Saskatchewan, Manitoba, Ontario and Quebec  
7 in Canada?

8 A Yes.

9 Q And you would classify  
10 it as one of the leading members of the Arctic Gas  
11 Project?

12 A Yes.

13 Q Now, in the answer  
14 that you refer to you say that one of the basic  
15 principles of the project is that new facilities  
16 will be built only where none now exist or where those  
17 that do exist are too small to be of practical use.  
18 Another basic principle would be economics, that is  
19 to say cost of service?

20 A Yes.

21 Q And perhaps, although  
22 it may not be one of the basic principles of the  
23 Foothills project, but another important principle  
24 would be the avoidance of jurisdictional disputes?

25 A I am not sure if you are  
26 asking me a question. You want me to comment on  
27 whether that is a basic principle of Foothill's  
28 project or are you asking me if academically  
29 whether or not that is a good principle?

30 Q You can answer it either



S.R. Blair  
Cross-Exam by Goldie

1 way.

2 THE COMMISSIONER: Excuse  
3 me, Mr. Blair, I am sorry. Before you do, what  
4 is the question again -- forgive me, Mr. Goldie.

5 MR. GOLDIE: I interpolated  
6 a comment and I should not have done so, Mr.  
7 Commissioner. My question was: I suggest a basic  
8 principle of any project involving the construction  
9 of a new pipeline is the avoidance of jurisdictional  
10 conflicts having authority over that pipeline.

11 Does that make  
12 it clear for you?

13 THE COMMISSIONER: You mean  
14 federal and provincial authorities?

15 MR. GOLDIE: Federal, pro-  
16 vincial, yes, things of that order.

17 A I wouldn't rate  
18 that as a basic principle. I don't think that it  
19 is that heavy or important a matter. It is one  
20 of the factors that is taken into account, but no,  
21 I don't agree with that basic principle, the avoidance  
22 of federal, provincial disputes over jurisdiction.

23 Q If that principle is  
24 not avoided, do you not run the risk of running into  
25 financing problems arising out of the fragmentation of  
26 control over systems?



S.R. Blair  
Cross-Exam by Goldie

1 A No, I don't think so.  
2 I don't think there's any evidence or basic reason to  
3 support that suggestion.

4 Q Just picking up the  
5 reference to TransCanada again, on page 4 you refer  
6 to the Northwest Project Study Group on the first answer  
7 on that page, and you name TransCanada Pipeline as  
8 being one of the members. It in fact was one of the  
9 leading undertakers of that particular project, is that  
10 correct?

11 A Yes, in some ways I think  
12 that is correct. As I remember, for instance, Trans-  
13 Canada was nominated to have the largest single percentage  
14 participation of any of the six companies. Its parti-  
15 cipation was a degree greater than that of the other  
16 five. The leadership so can be conceived in other  
17 ways, on the terms of chairmanship of committees, and  
18 general leadership of the project, I didn't interpret  
19 TransCanada as being a leading member at that stage.  
20 I interpreted the leadership as composing of the  
21 American companies.

22 Q You would agree with me,  
23 I think, that the most important committee is the  
24 Executive Committee?

25 A Yes, Executive or Manage-  
26 ment Committee was formerly the top policy committee  
27 of these groups.

28 Q And TransCanada's  
29 nominee was a co-chairman of that committee?

30 A Not as I remember.



S. R. Blair  
Cross-Exam by Goldie

1 Q You don't have any recollec-  
2 tion of that?

3 A I have a recollection of  
4 it but it isn't compatible with what you're saying. I  
5 remember the chairman of the committee as you've  
6 described to us then was a representative of another  
7 company, one of the American distribution companies.

8 Q Were you not aware when  
9 you spoke to Mr. Horte that he was co-chairman of  
10 the Executive Committee of that Study Group?

11 A No, at least I don't  
12 remember being aware. That's not my memory or recollec-  
13 tion.

14 Q You in your last answer,  
15 and elsewhere in your evidence, you appear to lay a  
16 good deal of emphasis on the influences of U.S. companies.

17 A Yes.

18 Q I notice for instance  
19 page 13, the last sentence in paragraph 4 -- I've  
20 drawn this to your attention before, you conceived the  
21 view that the gas -- the Arctic Gas proposal was being  
22 influenced too much for the special purposes of U.S.  
23 companies.

24 A Yes, I did.

25 Q And that on page 27  
26 the last paragraph where you talk about influence and  
27 controlled management is the years in which the project  
28 is conceived, you talk about submitting to foreign  
29 control in those years, and in the last sentence you  
30 say:



S.R. Blair  
Cross-Exam by Goldie

1 "All that that would do is soak up available  
2 Canadian savings and management talent in  
3 support of foreign-conceived and led under-  
4 taking."

5 There are some other references like that, aren't  
6 there?

7 A Yes, there are quite a  
8 number.

9 Q And on page 27 you suggest  
10 that foreign ownership of 40% or less of the shares  
11 may still accomplish effective management control.

12 Do you see that?

13 A Right.

14 Q In fact, if there's a  
15 block of shares that may be accomplished by less. Am I  
16 right in that?

17 A Right, it is; the Alberta  
18 Natural Gas Company case is a good illustration.

19 Q And down to as little  
20 perhaps as 25% may constitute a block which provides  
21 effective management control?

22 A I don't know if that's  
23 right. I don't remember seeing such a case. I guess  
24 the C.D.C.'s ownership of Texas Gulf is in the 30%,  
25 and it's been described as potentially providing  
26 effective management control, but it seems to me that  
27 when you get down in a company the size with a lot  
28 of other strong shareholders, it perhaps would have  
29 the conceiving of a good-sized operation here that  
30 it's -- I'm not so sure that it's correct to suppose that



S.R. Blair  
Cross-Exam by Goldie

1 effective management control would go down with those  
2 smaller proportions. It certainly won't be anything  
3 like as secure if it's that small.

4 Q Well, it's a reflection  
5 based on the distribution of the other shares, if  
6 they are fragmented and not held in blocks then I  
7 suggest to you that a holding of say 25% may be  
8 sufficient to achieve what you call effective manage-  
9 ment control.

10 A Well, I think it's partly  
11 a reflection of the distribution of the other shares  
12 and it's partly a reflection of the objectives and  
13 the policies of the entity holding that minority posit-  
14 tion and I suppose that there could be cases in which  
15 as little as 25% could control a company, but I don't  
16 think -- I'm not familiar with that happening.

17 Q Well, the same qualifica-  
18 tion that you're stating with respect to that applies  
19 to a holding of 49%, doesn't it?

20 A Well, by the time you  
21 hold 49%, you're so close to having a majority control  
22 that the qualifications apply a good deal less, and  
23 I think 49% is predictably going to produce management  
24 control; 25% may or may not.

25 Q But these have to be in  
26 blocks, don't they?

27 A Well, they have to be  
28 under the control of some entity that's going to want  
29 to exercise it, management influence. A block either  
owned by one party or by several parties that agree



S.R. Blair  
Cross-Exam by Goldie

1 to act together.

2 A Right.

3 Q Now, if TransCanada, Union  
4 Gas, Consumers Gas, Northern & Central, and the Canada  
5 Development Corporation owns say something in excess of  
6 35% of the outstanding shares of the company, that  
7 combination would make it very difficult for any other  
8 combination to form a block sufficient to provide  
9 effective management control, wouldn't it?

10 A Not necessarily if the  
11 other combination had a block of similar size, it's  
12 still possible that they might exercise effective con-  
13 trol.

14 Q Do you seriously think  
15 in the light of all your experience that somebody could  
16 exercise control over a company in which those companies  
17 held the kind of shares that I'm talking about without  
18 the concurrence of those companies?

19 A No, I think as a practical  
20 matter that is unlikely in companies of that size and  
21 strength, but again, in giving a precise answer if  
22 you're saying that those companies own 35, it seems  
23 to me you've left room for some other company to own  
24 65. If that was the case, then obviously that 65%  
25 shareholder would be <sup>in a</sup> pretty strong position of influence.

26 Q Now, if other shares  
27 to a total of 51% were held in Canada, I would suggest  
28 to you that it would be virtually an impossibility for  
29 effective management control to reside anywhere else  
30 but in Canada.



S.R. Blair  
Cross-Exam by Goldie

1 With 35% or more being held by those companies, which  
2 are strong companies, Canadian companies, the balance  
3 being 50%, 51% being held in Canada, I'm suggesting  
4 to you that the possibility of a block being formed out-  
5 side of Canada/<sup>that</sup>would exercise effective management  
6 control is a practical impossibility.

7 A Well, I don't want to  
8 leave any impression of lack of respect for the strength  
9 and independence of the good companies you've named,  
10 the Canadian companies; but I can't agree with you, I  
11 simply can't agree with what you have just said is  
12 absolutely true and complete. In other words, I  
13 think that even if there were good strong Canadian  
14 companies which in the aggregate held around 35% of  
15 the shares, and other Canadian investors which in the  
16 aggregate held around 16% of the shares, that it is  
17 possible that the share ownership could still be  
18 distributed in a way in which the effective control  
19 of influence on the management of the company would be  
20 greatly under the influence of a foreign interest.

21 Q It would not be effective  
22 management control, would it?

23 A I think it could be  
24 pretty effective management control, yes.

25 Q The question I put to  
26 you a few minutes ago was, with your experience of  
27 those companies, assuming that 16% or more is held  
28 in Canada, I put it to you that it is a practical  
29 impossibility. Now, do you disagree with that?

30 A Yes, I'm denying that.



S.R. Blair  
Cross-Exam by Goldie

1 I think the word "a practical impossibility" is stronger  
2 than the situation which you've described deserves.  
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S.R. Blair  
Cross-Exam by Goldie

1 Q It's a commercial  
2 impossibility, let's put it that way.

3 A No, I don't like that  
4 either.

5 Q Have you ever had any  
6 experience, given a share distribution of that kind  
7 of a block achieving effective management control  
8 in the face of interest of the kind I have mentioned?

9 A Well, we try to keep  
10 out of those kinds of experiences directly. I can't  
11 think of an illustration now at the moment, but I  
12 might if I had a little time.

13 Q Well, I will give you  
14 all the time you want.

15 Now, you used a phrase  
16 "foreign conceived and led." You say that applies to the  
17 Arctic Gas System?

18 A Certainly to -- yes,  
19 I do, to a degree, too much for us to continue it.

20 Q Did you conceive and  
21 lead the Gas Arctic System project?

22 A Yes, as much as anybody  
23 could say that without being immodest, I would  
24 say any one company could, I would say that ALberta  
25 Gas Trunk did.

26 Q I think you were right  
27 the first time, and the basic concept of that project  
28 was to bring gas from Alaska and Canada to  
29 markets of North America?

30 A Yes.



1 Q And its aim in that respect  
2 was exactly the same as the aim of the Arctic Gas  
3 proposal?

4 A No.

5 Q In what way does it  
6 differ?

7 A Well, quite a few of the  
8 ways that were brought here in the direct  
9 testimony. I mean in that very limited way you  
10 said the projects had that objective in common.

11 Q That's what I am talking  
12 about.

13 A Okay, but they were  
14 major differences in the project notwithstanding  
15 that they had that in common.

16 Q Well, they had the  
17 same name and the basic difference is that you led  
18 one and you don't lead the other, isn't that it?

19 A No.

20 Q All right, let's look  
21 at "foreign led" -- that phrase "foreign led" I assume  
22 refers to management?

23 A Yes, the leadership would  
24 come through the management or the executive committee  
25 and the other key committees into the overall management  
26 of the project.

27 Q Well, let's take these  
28 things one at a time. Firstly, there is only  
29 one committee in the Arctic Gas organization that  
30 has any executive power and that is the management



S.R. Blair  
Cross-Exam by Goldie

1 committee, is that correct?

2 The other committees are  
3 all advisory.

4 A Well, I am sure you  
5 have been well informed on this. I would say that  
6 that underpaves the real power of the other committees,  
7 but the technical sense is the objects are written  
8 up, if it says it that way, fine. You know much  
9 more of it currently than I do.

10 Q No, I just took it  
11 from your evidence in which you said that it was  
12 good to be participating in some of the committee  
13 work, that you were familiar with the provisions  
14 of the agreement that you signed when you entered  
15 the Arctic Gas project?

16 A Oh, yes, it was,  
17 we were all part of this but as I say, that was  
18 a little while ago and I haven't particularly  
19 refreshed myself so I will follow your definitions  
20 about what the terms of reference to the committees  
21 are, but what I thought you were trying to do is  
22 -- I thought your question implied that there was  
23 only one important committee effecting executive  
24 direction and I don't really think that is right.  
25 I think that some of the other committees have a  
26 good deal with molding and deciding executive  
27 direction.

28 Q The other committees  
29 were advisory and there was only one committee  
30 that had the power to take a decision and that was



S.R. Blair  
Cross-Exam by Goldie

1 the management committee, is that not correct?

2 A Well, what I meant  
3 to say and I'll try to say it more clearly, is I  
4 am prepared to follow your use of terms like  
5 advisory and executive, but if that's what the  
6 agreements say, you know, you'll be more current  
7 than I, but what I don't agree with is that the  
8 other committees are advisory in the normal sense  
9 of only sort of raising suggestions. I think  
10 effectively the other committees have a great  
11 deal to do with what that project has become.

12 THE COMMISSIONER: Well,  
13 you say they were advisory, but their advice was often  
14 acted upon, is that it?

15 A Yes, exactly.

16 MR. GOLDIE:

17 Q But their advice had  
18 to come before the management committee before it  
19 could be implemented?

20 A Yes.

21 Q Now, the management  
22 committee was organized in groups, wasn't it?

23 A Yes, it was.

24 Q And the -- any decision  
25 taken by the management committee required the  
26 acceptance of that decision by each group, is that  
27 correct?

28 A Yes, as I remember,  
29 that is a fair statement.

30 Q So the Canadian non-



1 producer group had a veto power, right?

2 A Yes, the agreement pro-  
3 vided for a form of authorization which included  
4 the right of any one group to vote against a main  
5 action.

6 Q Do you quarrel with  
7 my use of the word "veto"?

8 A I don't think so. I  
9 am not sure if the word appeared in any document,  
10 but I think it is pretty fair.

11 THE COMMISSIONER: So that  
12 if a majority of the Canadian non-producer  
13 group failed to concur in a proposal, it would not  
14 go ahead. That is the point as I understand it.

15 MR. GOLDIE: Yes, that is  
16 your understanding, isn't it, Mr. Blair?

17 A Yes, in formal  
18 terms of decision I agree with that, is the way  
19 I remember it.

20 Q And the majority of  
21 the Canadian non-producer group consisted of the  
22 companies that we have been talking about that  
23 you have agreed are independent Canadian companies,  
24 is that correct?

25 A Yes, they certainly  
26 were. Of course in those years there were a number  
27 of other independent Canadian companies that are  
28 not in the six that we have listed and perhaps for  
29 completeness we ought to remember them too, because  
30 we've named the others.



1 Q Were any of them non-  
2 independent?

3 A Well, let's see, there  
4 was Canadian Pacific Investments.

5 Q Well, let's just  
6 pause there. Is it foreign controlled?

7 A No, sir, it isn't.

8 Q More or less?

9 A It is controlled by  
10 the Canadian Pacific Railway Company.

11 Q Yes, go on.

12 A There was the Canadian  
13 National Railway Company.

14 Q Is it foreign controlled?

15 A Of course it is not, it  
16 is the furthest from foreign controlled.

17 Q Except AGTL.

18 A No, it's further  
19 than AGTL.

20 Q All right, go on.

21 A We have a half of  
22 one percent, some outside of the country  
23 ownership.

24 There was Pembina Pipelines  
25 which is very Canadian and very independent. I  
26 think that technically it is controlled by another  
27 company as is true in the case of Canadian Pacific  
28 Investments and I don't remember if there were  
29 any others, maybe that was all.

Q Well, let's go on



S.R. Blair  
Cross-Exam by Goldie

1 now to the management of the company because in a  
2 number of places you talk about management. Do you  
3 remember who the officers of the company are ?

4 By company I mean Canadian Arctic Gas Study Limited.  
5 which was the -- owned by the study group, is that  
6 correct?

7 A Yes.

8 Q All right, well, do you  
9 remember who the chairman was during the time that  
10 you were there?

11 A There was Bill Wilder  
12 and the President was Vern Horte and there were  
13 a number of vice presidents and a treasurer.

14 Q Well, let's just go  
15 through them. Mr. Wilder, he is a Canadian?

16 A Yes.

17 Q No question in your  
18 mind about his ability to perceive Canadian problems?  
19 Or is there?

20 A Well, I guess -- you  
21 want me to focus on the word "ability" I guess, is  
22 the operative word, and since we have substantially  
23 different views on Canadian problems I guess that  
24 inherently there is a question in my mind about  
25 the ability just as I am sure there must be a  
26 question in his my mind about my ability to perceive  
27 Canadian problems. The answer has to be yes.

28 Q I don't believe  
29 Mr. Wilder has ever questioned your integrity. Are  
30 you questioning his now?



S.R. Blair  
Cross-Exam by Goldie

1 A Absolutely not.

2 Q All right.

3 A Of course not.

4 Q Mr. Horte is a Canadian?

5 A Yes.

6 Q Any question in your mind

7 about his ability to understand things from a  
8 Canadian point of view?

9 A Well, I think if you  
10 press this question I need as a matter of integrity  
11 to give you the same answer that yes, we are obviously  
12 differing considerably on our understanding of  
13 Canadian problems. I suppose in the act of differing  
14 I would say that we question each others ability  
15 to really understand it.

16 Q Are you suggesting that  
17 because somebody disagrees with you he is under the  
18 influence of some foreign nation?

19 A I think that is an  
20 absurd question to relate with the answers that I  
21 have been giving you if you had listened to them  
22 carefully.

23 Q So people may have  
24 differences with you and still have a point of  
25 view which in their opinion is for the welfare of  
26 the Canadian country, is that correct?

27 A Of course.

28 Q All right, and would  
29 you agree that Mr. Wilder's point of view is along  
30 that line?



1 A Yes.

2 Q And Mr. Horte's?

3 A Yes, if they

4 say so, sure.

5 Q Let's go down the list.

6 Mr. Kreaver(?) is vice president of general

7 council, is he a Canadian?

8 A I don't know Mr. Kreaver.

9 Q Mr. Harvey is vice presi-  
10 dent of operations, is he a Canadian?

11 A I think so. I do  
12 know Mr. Harvey and I believe he is a Canadian.

13 Q Mr. Stark, do you  
14 know him?

15 A I have heard of him.  
16 I don't know him.

17 Q Mr. Stewart? Do you  
18 know him?

19 A No, I don't know  
20 him.

21 THE COMMISSIONER: Is this  
22 the executive committee?

23 MR. GOLDIE: No, these are  
24 the officers of the company and I assume that the  
25 witness is referring to them when he talks about the  
26 management of CAGPL. In any event let me assist  
27 you. According to my count, the vice president of  
28 corporate affairs is the only American that I can  
29 find which makes the make up of the senior management  
30 about 86% Canadian.



1 THE COMMISSIONER: Is that

2 MR. Brackett?

3 MR. GOLDIE: Yes, that is

4 Mr. Brackett.

5 A Well, you've been  
6 supplied with the data. I don't have it. I had  
7 heard that that wasn't so, but I have no data,  
8 I have no personnel files.

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S.R. Blair  
Cross-Exam by Goldie

1 Q I just wanted to know  
2 what the basis of your assertion is in which you use  
3 the words:

4 "A foreign conceived and led undertaking."  
5 I think I have it now.

6 A Well, I can get to that  
7 a lot better with you than by a reviewing the nationali-  
8 ties of the individual members of management. The basis  
9 of my statement is that the original Northwest project  
10 proposal --

11 Q Well, I'm sorry. I'll  
12 come to this question of the original proposal.

13 A Well, I'd like to answer  
14 your question about what the basis is of my statement.

15 Q I'll give you an opportun-  
16 ity to do that.

17 MR. GIBBS: You just finished  
18 saying you wanted to know the basis upon which he said  
19 "foreign led and controlled" and surely Mr. Blair is  
20 now entitled to answer.

21 MR. GOLDIE: I will give him an  
22 opportunity to do so, but I wish to complete the line  
23 of cross-examination which I presently have. You have  
24 my undertaking that he be allowed to do so.

25 MR. GIBBS: You just finished  
26 putting the question which Mr. Blair is trying to  
27 respond to.

28 THE COMMISSIONER: Well, the  
29 expression was "foreign conceived and led" as I recall.

30 MR. GOLDIE: Yes.



S.R. Blair  
Cross-Exam by Goldie

1 THE COMMISSIONER: Where does  
2 that appear?

3 MR. GOLDIE: On page 28, Mr.  
4 Commissioner.

5 THE COMMISSIONER: "Conceived  
6 and led undertaking".

7 MR. GOLDIE: Yes.

8 Q Now I want to put another  
9 series of questions before I come back to that question.

10 MR. GIBBS: Well, Mr. Commis-  
11 sioner --

12 THE COMMISSIONER: Well, Mr.  
13 Goldie, I think to be fair to Mr. Blair he should be  
14 given an opportunity to explain the way he defines  
15 that phrase before you go onto another series of  
16 questions.

17 MR. GOLDIE: All right.

18 Q Would you carry on with  
19 your answer then, please? Or your explanation.

20 A Yes. To respond exactly  
21 to the invitation to explain how I conceived that  
22 phrase, I conceived it as describing a project proposal  
23 which in my judgment and to my experience with it  
24 evolved principally to serve the objectives of foreign  
25 companies, and was influenced in its management and  
26 policies' much more by foreign companies than by Canadian  
27 companies, and which in its nature is now a project  
28 proposal which is designed mainly to serve foreign  
29 purposes. That's what I meant by those words.

30 Q Thank you. Who presently



S.R. Blair  
Cross-Exam by Goldie

1 controls Foothills?

2 A Well, in terms of share  
3 ownership, at the moment the shares are owned 80%  
4 by the Alberta Gas Trunk Line Company Limited and 20%  
5 by Westcoast Transmission Limited. That proportion,  
6 though, is not truly indicative of control because we  
7 have undertaken -- the Alberta Gas Trunk Line has  
8 undertaken with Westcoast Transmission Limited that  
9 our voices and net in management control and influence  
10 will be equal, that we will appoint, as we do presently,  
11 equal numbers of our representatives of our companies  
12 to the Board of Directors, and that the later evolution  
13 of Foothills will produce an approximate equality be-  
14 tween the positions of the two companies in all respects.  
15 So I look at it as controlled equally by the two  
16 companies.

17 Q And who is the largest  
18 shareholder of Westcoast?

19 A I don't remember their  
20 exact distribution of shares. I believe it is Pacific  
21 Petroleums.

22 Q And who controls Pacific  
23 Petroleums?

24 A Again, without remembering  
25 the particulars of ownership, the Phillips Petroleum or  
26 Phillips Company interests in United States have the  
27 largest shareholding in Pacific Petroleum, to my  
28 knowledge.

29 Q Page 4 --

30 A Excuse me, those two



S.R. Blair  
Cross-Exam by Goldie

1 questions were control -- was the question control  
2 or holding the largest number of shares? I wonder if  
3 I heard you right.

4 Q I'm sorry, did you ask  
5 me --

6 THE COMMISSIONER: Would you  
7 deal with both so that there is no misunderstanding?

8 MR. GOLDIE: Well, let's --  
9 I'm sorry, I didn't catch your question. I'm sorry,  
10 I didn't catch what the question was.

11 A Well then perhaps in  
12 my answer to the Commissioner I could be sure I covered  
13 both accurately.

14 Q Well, both what? I'm  
15 sorry.

16 A Both the question of  
17 the proportions of shares owned and the question of  
18 control.

19 Q But the question that I  
20 asked you was, who is the largest shareholder of  
21 Westcoast?

22 A I thought so, and I  
23 answered that correctly. But I think on the second  
24 question did you change the word to "control"? That's  
25 what --

26 Q Yes, I think I did.

27 A Well, that's what threw  
28 me off. O.K., there is a distinction.

29 Q All right, well then  
30 perhaps you might develop that.



S.R. Blair  
Cross-Exam by Goldie

1 A Well, in the case of  
2 Westcoast Transmission, this isn't up to me, my knowledge  
3 is incidental, but my understanding is that there are  
4 a number of large shareholders. I believe I'm correct  
5 that Pacific Petroleums is the largest, has the largest  
6 number of shares in Westcoast. Others include the  
7 Government of the Province of British Columbia  
8 have significant shareholdings in Westcoast.

9 Q I'm sorry, go ahead.

10 A And I don't interpret  
11 Westcoast Transmission as controlled by anybody, as  
12 a matter of my operating experience with them. In the  
13 case of Pacific Petroleum, once again talking about  
14 other people's business, but to the best of my knowledge  
15 the Phillips Company does own a majority of the shares,  
16 and on that basis could be said to control Pacific  
17 Petroleums.

18 Q Well, let's go back to  
19 Westcoast for a minute. The chief executive officer  
20 of Westcoast is who?

21 A I'm ashamed to be so  
22 unfamiliar with my coast allies. I'm not certain at the  
23 moment. I believe it is still Kelly Gibson, but I'm  
24 not certain.

25 Q As of January this year  
26 who was the chief executive officer of both Pacific  
27 Petroleums and Westcoast Transmission?

28 A As of when?

29 Q January this year.

30 A Well, unless you're talking



S.R. Blair  
Cross-Exam by Goldie

1 about something special by the January, the chief  
2 executive officer of Pacific Petroleums is Mr.  
3 Rasmussen.

4 Q Yes, he presently is,  
5 and who was his predecessor?

6 A His predecessor was  
7 Kelly Gibson, yes.

8 Q And didn't Mr. Gibson  
9 hold both offices at that time, namely chief executive  
10 officer of Pacific Petroleums and chief executive  
11 officer of Westcoast Transmission?

12 A Yes, if I'm correct that  
13 he was then the chief executive officer of Westcoast  
14 Transmission, which I believe is the case. I know Mr.  
15 Ed Phillips is the president of Westcoast Transmission.

16 Q I would think that you  
17 would have come to the conclusion with your dealings  
18 with Westcoast that Mr. Gibson was indeed the chief  
19 executive officer.

20 A Is that a question?

21 Q I'm suggesting you draw  
22 on your experience to confirm your recollection. But  
23 it's immaterial if you don't recall. Now, on page  
24 4, paragraph 4, you say, and I quote:

25 "The agreed arrangement,"  
26 and to refresh your recollection you were talking now  
27 about your memory of the Northwest project --

28 THE COMMISSIONER: Well, you're  
29 going onto something else?

30 MR. GOLDIE: Yes, I am.



S.R. Blair  
Cross-Exam by Goldie

1 THE COMMISSIONER: Maybe we  
2 could stop for coffee? We'll stop for coffee then.

3 (PROCEEDINGS ADJOURNED FOR FEW MINUTES)  
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(PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

MR. GIBBS: Commission Counsel asked if I would give a list of the panels and subject matters which Foothills proposes to lead in phase one. It is as follows: After Mr. Blair a panel of one on the reason why the pipeline is needed. That evidence has been circulated, it is very short.

Following that, a panel on location, then one on hydraulics and connecting facilities, then a panel on pipeline design, a panel on communications, a panel on station design, a panel on materials engineering, a panel on geotechnical, a panel on construction planning, a panel on operating and maintenance, a panel on alternative systems, and if during the course of that evidence it appears appropriate we will bring Mr. Blair back again at the end of all those.

We are conscious of the Minister's direction that what we are to highlight are the differences, but on reviewing it seemed that the appropriate way and the best way to put a panel on each subject matter paralleling the subject matter panels of Canadian Arctic Gas and that is largely the reason why we have this long list and the different subject matters.

THE COMMISSIONER: Yes, thank you, and I hope that you will bear in mind the Minister's letter to the Inquiry dated July 4th, which was read when the Inquiry was at Fort McPherson



1 and at that time after I had the Minister's letter  
2 I said the Inquiry is already considering the  
3 social, economic and environmental impact of the  
4 pipeline proposed by Arctic Gas. The Minister  
5 has now referred the applications by Foothills  
6 and Alberta Gas Trunk to the Inquiry so that where  
7 the impact of these applications differs significantly  
8 from the application of Arctic Gas, the Inquiry can  
9 examine those areas and recommend appropriate terms  
10 and conditions in relation to it.

11 I think that the Inquiry  
12 should insofar as possible abide by that in the  
13 consideration of Foothills evidence throughout.

14 MR. GIBBS: Yes, sir.

15 THE COMMISSIONER: Mr.  
16 Goldie?

17 MR. GOLDIE: Thank you,  
18 Mr. Commissioner.

19 Q Mr. Blair, would  
20 you look at page four please, of your evidence.  
21 The second to the last paragraph beginning with  
22 the words "The agreed arrangement as I remember  
23 was that this new pipeline would be owned and  
24 proportioned to the percentage of participations  
25 of the study group members in their preliminary  
26 work."

27 Was there not according  
28 to your knowledge or recollection, a provision  
29 providing for maximum Canadian participation  
30 in the Canadian corporation?



S.R. Blair  
Cross-Exam by Goldie

1 This is in the Northwest.

2 A As the Northwest  
3 group existed at that stage and to my knowledge  
4 of it, I simply -- I do not recollect any  
5 particular provision for maximum Canadian participation.  
6 There may or may not have been one. I don't  
7 remember if there was one.

8 Q What was the basis of  
9 your statement in your evidence in chief about  
10 the agreed arrangement? Was that just something  
11 that stuck in your mind or do you have any document  
12 that you referred to?

13 A It is something that  
14 stuck in my mind. Whether or not there is a  
15 document also I don't know at the moment.

16 I wrote this in on the  
17 basis of my recollection.

18 Q All right, you would not  
19 be surprised to learn then that there was such  
20 a provision?

21 A No. No, I wouldn't  
22 be particularly surprised, I don't remember it,  
23 I don't remember any emphasis on it, but I wouldn't  
24 be surprised.

25 Q Well, you weren't a  
26 member of that particular group, were you?

27 A No, I was not.

28 Q No. But there is  
29 a provision of the same effect in the agreement  
30 that you became a party to with respect to the



S.R. Blair  
Cross-Exam by Goldie

1 Canadian Arctic Gas Study Group?

2 A Well, it's different.  
3 Those provisions -- I think you have to interpret  
4 a bit in the light of who draws them up and for  
5 what purposes, I mean, there are provisions that  
6 recognize that it would be good to have more  
7 Canadian ownership and they are often followed with  
8 the words, "if it is available" or "if Canadian  
9 investors are prepared", they can be structured in  
10 a way that really drives to the heart of securing  
11 majority ownership in Canada or not, and I think  
12 the one in the Gas Arctic Group, you see, it was  
13 a different provision, because it said, look, we've  
14 got the ownership in the hands of the two Canadian  
15 companies and it's going to stay that way and there  
16 is no undertaking that any of the U.S. partners  
17 can get in on it and I think that that is a lot  
18 different from a majority U.S. group, including  
19 a paragraph that says that they will seek majority  
20 Canadian ownership. They're towards the same  
21 parent objective, but different I think in their  
22 stiffness and effect.

23 Q Well, I am now  
24 talking about the agreement which gave rise to the  
25 study group, the merged study group.

26 A Oh.

27 Q You now know what  
28 I am directing your attention to?

29 A Yes.

30 Q And that merged study



1 group, the Gas Arctic Northwest Project Study Group,  
2 of course is the sponsor, if you want to put it  
3 that way, of Canadian Arctic Gas Study Limited.

4 A Yes.

5 Q Now, that agreement  
6 was one that Alberta Gas Trunk Line entered into.

7 A Yes.

8 Q And that agreement  
9 provided and I quote, if I ask you to identify,  
10 this is conforming to your recollection:

11 "Further with respect to any corporation  
12 owning any part of the project situated  
13 in Canada: 1) Canadians shall be  
14 given the opportunity to acquire ownership  
15 in the corporation to the maximum  
16 extent feasible and consistent with the  
17 formulation of a practicable overall  
18 permanent financing plan for the project,  
19 and 2) participants which are Canadians  
20 will be given the prior opportunity  
21 to make acquisitions out of that portion  
22 of the ownership interest referred to in  
23 clause one which is offered in accordance  
24 with such financing plans to corporate  
25 purchasers."

26 Now, is that -- you recall that clause when you  
27 entered into that agreement?

28 A Yes, and I think its  
29 language illustrates very well the distinction I  
30 was making a few minutes ago.



S.R. Blair  
Cross-Exam by Goldie

1 Q Well, did you have any  
2 unexpressed reservations when you signed that  
3 agreement?

4 A We had lots of expressed  
5 reservations.

6 Q Are they contained in  
7 the agreement?

8 A No.

9 Q Where are they contained?

10 A Well, they were expressed  
11 at the time. We told the other members some of the  
12 problems that we were having in the terms of merger  
13 and I remember that, you know, the final negotiation  
14 of that clause was one of the principle ones. We  
15 didn't think it went far enough.

16 Q Well, nevertheless,  
17 you entered into that agreement.

18 A Yes, I said we did.

19 Q Right.

20 A It was a matter fo  
21 of compromise.

22 Q And the same agreement  
23 contains a provision to the following effect, and  
24 I quote:

25 "The parties hereto recognize that Alberta  
26 Gas which operates extensive gas gathering  
27 and transmission facilities within and  
28 under the jurisdiction of the Province of  
29 Alberta has declared its interest in studying  
30 and providing laterals and other auxillary



1 facilities and services in connection  
2 with the delivery of gas from or  
3 to the project within its service area."

4 Was that an important consideration relating to your  
5 agreement to enter into this arrangement?

6 A Well the clause that  
7 you recite which I remember well was, again the  
8 result of stiffest negotiation and I felt considerable  
9 compromise from us. It was nothing like as strong  
10 as we thought we deserved, but it was all  
11 we could get which I would -- and in that sense  
12 it is similar to the one that you read about  
13 Canadian ownership.

14 Q Well, my understanding  
15 from your evidence is that the concept of the  
16 Gas Arctic Systems scheme was to transport Alaskan  
17 and Canadian gas to North American markets and  
18 that was the concept of the agreement that  
19 you entered into in 1972?

20 A Well, the two ventures  
21 had what you summarized, that in common, but it is  
22 not the concept. I mean, both of the projects  
23 were working obviously toward a project which would  
24 accomplish that very broadly described objective,  
25 but I am making out that it was not the same concept.  
26 There were profound differences in concepts and  
27 we entered into the merger in the hope of further  
28 compromise and assimilation of these concepts into  
29 a workable, eventual, middle of the road project.  
30



S.R. Blair  
Cross-Exam by Goldie

1 Q Well, that concept of  
2 moving Alaskan gas to the lower 48 states, and delta  
3 gas in Canada was carried forward in the merged group,  
4 wasn't it?

5 A Yes.

6 Q And you actively parti-  
7 cipated in that?

8 A Yes.

9 Q Now you say at page 11  
10 in paragraph 4, the fourth to the last line, and  
11 I'll read it:

12 "The project presently advanced by its two  
13 agencies, Canadian Arctic Gas Pipeline Limited  
14 and Alaskan Arctic Gas Pipeline Limited, was  
15 recommended by its management and prepared for  
16 regulatory applications." It was approved by  
17 the Management Committee for submission to  
18 the regulatory agencies, wasn't it?

19  
20 A Yes.

21 Q And you voted in favor of  
22 that.

23 A Technically we -- well,  
24 I think we did, with all kinds of reservations and  
25 qualifications.

26 Q Unexpressed?

27 A No, expressed, expressed  
28 very clearly, expressed strongly and for the record  
29 of the Management Committee and on occasions in  
30 writing. Very much expressed.



S.R. Blair  
Cross-Exam by Goldie

1 Q I repeat, you voted in  
2 favor of that for submission to the regulatory agencies,  
3 didn't you?

4 A Well, you are asking the  
5 question with such confidence that I suppose a record  
6 has been checked and you've found that there was a vote  
7 cast in favor, and if so I wouldn't dispute it. We  
8 voted against a lot of things; we voted in favor of  
9 some, and eventually we certainly concented to the  
10 filing of the application, and we consented to it  
11 based on a number of conditions and qualifications that  
12 were described then to us.

13 Q Didn't your qualifications  
14 and reservations come after that?

15 A No, they didn't. They  
16 came before it and during it.

17 Q Well, let's now go to  
18 a decision that I suggest was one of substance in  
19 relation to these proceedings, or at least you have  
20 suggested it was one of substance, and that is with  
21 respect to the route. Now the route was one that was  
22 the subject matter of very considerable deliberations,  
23 is that correct?

24 A Yes.

25 Q And with particular  
26 reference to the route in Alberta, an ad hoc committee  
27 was struck, was it not?

28 A Yes, I want to expand on  
29 this for a moment, Mr. Goldie, and say that these were  
30 -- I just want to be quite clear who between us was



S.R. Blair  
Cross-Exam by Goldie

1 taking this responsibility because these were discussions  
2 which were elaborately described as private between the  
3 parties during all of this period, and in which as a  
4 matter of fact we had considerable constroversy and  
5 strain about questions of privacy for one reason or  
6 another, many of which we were particularly involved  
7 in as a company, but I remember that emphasis, I remember  
8 the sensitivity, and now if as counsel for this group  
9 you want me to go back into these private discussions  
10 and speak publicly on them, I have no reluctance to,  
11 I want to be awfully clear that is what is happening,  
12 that I am not breaking those past commitments as between  
13 other members. I suppose I'm able to do this without  
14 consulting the other members.

15 Q Mr. Blair, I'm talking  
16 about your evidence. It is you who have suggested the  
17 management of this company has been motivated by some  
18 improper purpose, or has been guided by something which  
19 is not proper.

20 MR. GIBBS:  
21 That's not a fair sugges-  
22 tion at all; Mr. Blair has not in any way implied  
23 improper purpose. He's implied different purposes.

24 THE COMMISSIONER: I think Mr.  
25 Gibbs' objection to the way your question was framed  
26 is well taken, Mr. Goldie. As I understand it, Mr.  
27 Blair is saying that these two groups differ greatly  
28 in what they conceive to be the Canadian interest, in  
29 this situation. He has made it clear he doesn't  
30 suggest that Arctic Gas, the management of Arctic Gas  
is acting in anything except with the conceived bona



S.R. Blair  
Cross-Exam by Goldie

1 fide to be the best interests of the country. If I  
2 have misunderstood, Mr. Blair, I would like to know.

3 MR. GOLDIE: Q Do you agree  
4 with that, Mr. Blair?

5 A I agree with it exactly.

6 Q All right now, we are  
7 talking about your views on differences, and I think  
8 you have stated that your differences were because you  
9 considered these to be important, and we're now talking  
10 about the decisions that were taken with respect to the  
11 selection of routes, including the use of existing  
12 facilities. Now you've given evidence on that.

13 A Yes, and I still have my  
14 answer due to you on my basic reasons, which I under-  
15 stand you deferred.

16 Q I'm not talking about  
17 private discussions, I'm talking about the decisions  
18 that your company took.

19 A Well, that's fine.

20 Q I'm not talking about  
21 private discussions or anything like that.

22 A A little while ago you  
23 were taking me into a special committee on route, and  
24 that's where I got cautious about the interests of the  
25 other companies.

26 Q All right.

27 A We were discussing it  
28 in private.

29 Q The existence of the  
30 special committee or your ad hoc committee was not a



S.R. Blair  
Cross-Exam by Goldie

1 matter of a private bargain, was it?

2 A Everything was a matter  
3 of private undertaking that all these proceedings would  
4 be held in private. I had no problem with them at all.  
5 I'll converse about them as long as you like. I'm just  
6 making sure that I don't come on the record here as  
7 breaking old commitments for privacy.

8 Q Let's see how far we can  
9 get along, and if you feel concerned about breaking  
10 a commitment, let me know.

11 A Well, I'm concerned about  
12 breaking a commitment when you take me back into the  
13 particulars in committee, not through any embarrassment  
14 of mine, but just because that's the way it was. It  
15 was a private committee and private discussion which  
16 was greatly emphasized by the management you're  
17 representing now.

18 MR. GIBBS: Mr. Commissioner,  
19 if my friend is going to lead Mr. Blair into these  
20 private discussions, I think he owes it to him on  
21 behalf of all of the members in the Study Group to  
22 relieve him of those confidential undertakings.

23 MR. GOLDIE: Well, I --

24 THE COMMISSIONER: Well, could  
25 we break it down this way, Mr. Goldie?

26 MR. GOLDIE: There hasn't come  
27 anything yet which requires that.

28 THE COMMISSIONER: Well, if you  
29 are asking Mr. Blair for his reasons and those of his  
30 company for adopting a certain stance on a particular



S.R. Blair  
Cross-Exam by Goldie

1 matter, it seems to me that we're entitled to have  
2 him speak to those. If you then go on to say, "Well,  
3 did you express this point of view in committee?" the  
4 question of confidence might arise. It's not a matter  
5 of evidence, it's not a matter of privilege or anything  
6 of that sort, I shouldn't think, it's just a matter  
7 of **good** manners, as far as I can see.

8 M R. GOLDIE: Certainly.

9 The particular point of the evidence that I have  
10 already directed the witness' attention to was where  
11 he stated that the present proposal was recommended by  
12 management who submitted it to the regulatory authorities.  
13 I now have an agreement that that proposal had the  
14 support of Alberta Gas Trunk at that time.

15 MR. GIBBS: Oh no, he does not  
16 have that agreement. He has Mr. Blair's agreement that  
17 he voted in favor of it going to the regulatory with  
18 reservations; and its when you start getting into the  
19 reservations you are getting into this question of  
20 confidentiality.

21 MR. GOLDIE: All right, let  
22 me ask you this: Was there any reservation to be  
23 expressed to the regulatory agency?

24 A Yes, I think so, in this  
25 sense that as I remember, that we had some profound  
26 differences on what should be applied for, and on how  
27 some policies of the very large group should be repre-  
28 sented.

29 THE COMMISSIONER: Mr. Blair,  
30 when we speak of the application, we mean the submission



S.R. Blair  
Cross-Exam by Goldie

1 to the National Energy Board to fortify these many  
2 volumes of material. I take it that, so we don't have  
3 to go on in this vein for very much longer, that Alberta  
4 Gas Trunk consented to the application going forward and  
5 all of this material being filed with the Minister and  
6 the Board in its present form, and that none of the  
7 reservations you may have had are to be found in the  
8 application or in this material. Is that a fair  
9 statement?

10 A Very nearly. What would  
11 be needed just to complete it is that the material that's  
12 in now I'm sure is a later generation of what the  
13 material we were then discussing exactly. A lot of  
14 the material that's in now I'm sure didn't exist at  
15 all, but the basic application that is behind that  
16 material is, I understand it's changing a little now,  
17 but at least I know what's in those books is what we  
18 were discussing then, yes.

19 MR. GOLDIE: Q And the  
20 material -- the application was made March 21, 1974,  
21 and that was what was consented to by Alberta Gas  
22 Trunk. Now as you point out, since then you have  
23 withdrawn and since then supplementary filings have  
24 been made. But that qualification, do you agree  
25 that that filing was made in the form that it was with  
26 the approval of Alberta Gas Trunk?

27 A Yes, I think the word  
28 "approval" isn't -- goes too far because we didn't like  
29 it and everyone knew it at the time, but it went with,  
30 if you say so, our vote on accepting it, it should



S.R. Blair  
Cross-Exam by Goldie

1 proceed. I don't remember that vote, but if you say  
2 there was such a vote and we voted in favor, that's  
3 what would have happened because we wouldn't want to  
4 be the one or one of a small number that was not  
5 prepared to see something go ahead.

6 Q And an important part  
7 of that application was the routing through Alberta.

8 A Yes.

9 Q That routing was the sub-  
10 ject matter of specific consideration.

11 A Yes.

12 Q You approved of that  
13 routing?

14 A Yes.  
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S.R. Blair  
Cross-Exam by Goldie

1 Q Just one or two  
2 questions about Alberta Gas Trunk. Mr.  
3 Blair, for the purposes of having it before us for  
4 perhaps later reference, the company has outstanding  
5 two classes of common shares.

6 A Yes.

7 Q Class A is held  
8 by the public?

9 A Class A is <sup>owned by</sup> by the  
10 investors, yes, individual and institutional public.

11 Q And Class "B" is relatively  
12 few in number, and it is in the hands of whom?

13  
14 A Yes, to give you --  
15 explain them relatively, there are about 2,000  
16 class B shares authorized and about 1,700,  
17 I believe, issued presently and they are issued  
18 to producing companies, to gas shippers -- shippers  
19 of gas -- particularly TransCanada Pipelines, to  
20 utilities in Alberta and as to three of the 2,000  
21 shares to persons, to private citizens who are  
22 nominated by the Government of Alberta and those  
23 2,000 class B shares are for the purpose of arranging  
24 part of the representation on our Board of directors.  
25 They have a special right to representation  
26 on our Board and again to complete the perspective on  
27 it, the real bulk of the equity, 22 million common  
28 shares are the number of the Class A shares.

29 Q Now, I believe there  
30 are some amendments to the incorporating statute



1 which have not come fully into effect and correct  
2 the matter if I am wrong in that, you can assist me  
3 as we go along, but subject to those amendments  
4 coming into force there are presently eleven  
5 directors?

6 A Well, the way that  
7 you have said it kind of tangles it up. There  
8 are presently eleven directors and there is an  
9 amendment to our act which has not yet received  
10 proclamation.

11 Q Which in effect would  
12 increase the number of directors.

13 A It would increase the  
14 size of the Board to fifteen directors.

15 Q All right, well, let's  
16 deal with the situation as it is at the present  
17 time and of the eleven directors, three are elected  
18 by the public, namely the Class A shareholders.

19 A Well, they are elected  
20 by the Class A shareholders.

21 Q Well, all right,  
22 the -- of the remaining eight, three are elected  
23 by the Class B shareholders?

24 A No, six are -- well,  
25 yes, okay, three are elected by Class B shareholders  
26 and three more are those three Class B shareholders  
27 who have been designated by the Government of Alberta  
28 as private citizens to be appointed to the Board  
29 with the authority of the Government.

30 Q It is



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1 very simple, is it not, three are elected by the  
2 Class A, three are elected by Class B, and three  
3 are elected by the Government of the Province  
4 of Alberta and two are appointed by the preceding  
5 nine, isn't that ?

6 A Yes, that is right.

7 Q So the public -- and  
8 the Class B shares are allotted to, as you put it,  
9 utility companies, gas export companies, gas  
10 producers and the three directors appointed by  
11 the government?

12 A Yes.

13 Q And if I understand it  
14 correctly then, the public, that is to say those  
15 who buy Class A shares directly effect the --  
16 only three directors.

17 A This is the way  
18 that it stands at the present.

19 Q Thank you.

20 A As this has evolved  
21 from a situation a few years ago in which the  
22 Class A shareholders elected no directors and as  
23 you point out there is an <sup>amendment</sup> to the Act by  
24 proclamation which will further increase the  
25 representation of Class A shareholders, but at  
26 this stage their right is to elect three directors  
27 of the eleven.

28 Q But not through a  
29 majority of -- the amendment which has yet to be  
30 proclaimed, would not provide for the public at large



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1 to elect a majority of the Board, would it?

2 A No, the amendment  
3 to be proclaimed will provide for the Class A  
4 shareholders to elect seven directors and that  
5 will leave eight to be appointed from among  
6 the Class B shareholders.

7 Q Okay thank you.  
8 Now, the Incorporating Act which is an act of the  
9 Province of Alberta --

10 THE COMMISSIONER: Excuse  
11 me, the two appointed by the other nine directors,  
12 that was the phrase you used, Mr. Goldie, are  
13 appointed only by the three Class B directors and  
14 the three government directors?

15 A No, sir, they are  
16 appointed by all nine.

17 THE COMMISSIONER: All nine --

18 A -- of the other  
19 directors and again by the terms of the Act, one  
20 of those persons must be the current chief executive  
21 officer of the company so that appointment is pretty  
22 much foregone and by practice the other person, --  
23 well, no, by law, they both must be members of the  
24 fulltime management of the company -- by law one  
25 must be the chief executive officer, by practice  
26 the other is another senior officer of the company,  
27 named <sup>by</sup> the chief executive. The idea is to get  
28 a couple of full time management people included  
29 within the Board of Directors for continuity.

30 Q Those appointments though



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1 I believe, Mr. Blair, are made by the remaining nine.

2 I think you said that.

3 A Yes, I did.

4 Q Yes, thank you.

5 Now, the statute which  
6 governs the -- which incorporated the company,  
7 provides that the company shall from time to time  
8 fix its own tolls and rates?

9 A Yes.

10 Q And these may be varied  
11 only as a result of a complaint being made to the  
12 Public Utilities Board of Alberta?

13 A Yes.

14 Q And the company may  
15 define and prescribe its own terms and conditions  
16 of service?

17 A Yes.

18 Q And these may be varied  
19 only by the Energy Resources Conservation Board  
20 of Alberta upon a complaint as to the reasonableness  
21 of those terms and conditions of service?

22 A Yes.

23 Q And the incorporating  
24 Act makes no provision for the company to set  
25 its rates or determine its terms of service other  
26 than by itself subject to variation by these two  
27 Alberta Boards on complaint, is that right?

28 A Well, I think the  
29 first four things you asked were pretty accurate.  
30 I don't know quite what you mean by "by itself", do



1 you mean to say something new that --

2 Q No, I am sorry, I am  
3 just summarizing that and if I confused you, I am  
4 sorry.

5 A It didn't confuse me, I  
6 just thought it was kind of a loose way of saying  
7 it because as a practical matter, the company  
8 sets its rates principally by negotiation and that's  
9 why I don't like saying by itself that it reaches  
10 agreement with shippers and then sets the rate  
11 which the shippers have agreed to and that is  
12 predominantly the way that we handle our business,  
13 so I want to get away from saying by itself so it  
14 was an arbitrary or unilateral action, but you  
15 did correctly summarize in your earlier questions  
16 the content of the enabling legislation.

17 Q Yes, and if there is  
18 lack of agreement on the part of the shipper, the  
19 rate is set and then he has the recourse to the  
20 Public Utilities Board and in respect to the com-  
21 plaint about the reasonableness of that rate, and  
22 that has happened in the past, hasn't it?

23 A This happened once,  
24 but normally, in this lack of agreement we keep  
25 on negotiating and come to agreement. There has  
26 been one case in the company's history of complaint.

27 Q There is the one  
28 case in which you failed to come to an agreement  
29 and you pursued the course provided by your  
30 statute which was to set the toll.



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1 A That is right.

2 Q And consequently if the  
3 National Energy Board sought to review the rates  
4 charged by Alberta Gas Trunk Line for the transportation  
5 of Arctic Gas, you're enabling statute does not  
6 permit you to give effect to that result, does  
7 it?

8 A Well, you are off into  
9 an unnecessary line of thought there, because we  
10 have already provided that the transmission of  
11 Arctic Gas will not occur under this statute or by  
12 that company.

13 Q Where is that provided  
14 for?

15 A It is provided in  
16 the filings that have been made to the National  
17 energy Board and to the Department, and part of  
18 it was filed beginning in March and was completed  
19 on May 1st, 1975. It is provided elaborately in  
20 those filings.

21 THE COMMISSIONER: In any  
22 event, Mr. Goldie, isn't that a question of law?  
23 -- Which we can't anticipate, can we? The National  
24 Energy Board presumably has jurisdiction over  
25 interprovincial, international pipelines. Well,  
26 at any rate, Mr. Blair says that there is no problem,  
27 do you accept that?

28 MR. GOLDIE: No, I don't.  
29 But I won't pursue it. I just wanted to know where  
30 this problem had been resolved.



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1 Q At the bottom of page  
2 11 of your evidence -- at the bottom of that page  
3 you say "it would be better to present our views  
4 and apply our efforts through participation with  
5 a small number of companies having consistent  
6 purposes and through the vehicle of a federal  
7 pipeline company having appropriate corporate  
8 objects".

9 What is the "federal  
10 pipeline company" that you refer to there?

11 A Well, forgive me  
12 for saying very obviously Foothills Pipe Lines  
13 Limited.

14 Q And no other? Is there  
15 not some other connection required to bridge the  
16 gap between the Mackenzie Delta, Beaufort Basin  
17 gas to the markets served by the company's systems?  
18  
19  
20  
21  
22  
23  
24  
25  
26  
27  
28  
29  
30



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Cross-Exam by Goldie

1                                   A     Oh yeah, but I mean that's  
2     just what all the applications say is that Westcoast  
3     Transmission will tie into Foothills and that the  
4     newly incorporated federal company, the Alberta Gas  
5     Trunk Line (Canada) Limited will tie into Foothills'  
6     systems, and thereby will connect the connection to  
7     the systems which serve the markets.

8                                   Q     Well now, Alberta Gas  
9     Trunk Line (Canada) is a federal company which is a  
10    wholly owned subsidiary of Alberta Gas Trunk is that  
11    correct?

12                                  A     Yes, it's a company,  
13    federally incorporated by commission of the Minister  
14    of Energy, Mines & Resources, with the consent of the  
15    Minister of the Department of Indian Affairs & Northern  
16    Development.

17                                  Q     And what is its purpose?

18                                  A     Its purpose is to provide  
19    a federal company to operate under federal control on  
20    a federal right-of-way to own all the new facilities  
21    which we propose to have built in the Province of  
22    Alberta for the purpose of moving Arctic Gas across  
23    the province to build all those incrementally new  
24    facilities that are required when Arctic gas starts  
25    to flow, and also to obtain from its parent, Alberta  
26    Gas Trunk Line Company, the use of facilities which the  
27    parent has previously built for the purposes of provin-  
28    cial movement of gas and which are economically advan-  
29    tageous to be so obtained in the future for the  
30    movement of Arctic gas.



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1 Q And will the result be  
2 in the fullness of time a completely separate system  
3 owned by a company called Alberta Gas Trunk (Canada)  
4 Limited?

5 A Yes, with this elabora-  
6 tion. In our filings to the National Energy Board.

7 Q And here since yesterday,  
8 is that correct? Are you reading from a filing which  
9 has been exhibited here?

10 A I'd have to ask Mr.  
11 Gibbs' information? I'm referring to the notice of  
12 intention to file a submission by the Alberta Gas Trunk  
13 Line Company.

14 MR. GIBBS: No, that has not  
15 been filed.

16 A In this filing then to the  
17 National Energy Board we included the commitment that --  
18 perhaps if I might read two particularly relevant  
19 paragraphs, that might be the most exact way of  
20 expressing this.

21 Q Yes.

22 A Three paragraphs. The  
23 first says this:

24 "AGTL,"

25 And AGTL in this document is the name tag for the  
26 Alberta Gas Trunk Line Company Ltd,

27 "AGTL acknowledges and accepts the jurisdiction  
28 and control of the National Energy Board over  
29 the transmission through Alberta of natural  
30 gas originating from sources outside the



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1 Province of Alberta, and in particular from  
2 the Beaufort Basin of the Western Arctic and  
3 over the traffic tolls and tariffs relating  
4 thereto.

5 If certificates of public convenience and  
6 necessity are granted by the National Energy  
7 Board to Foothills, and AGT Canada,"

8 and AGT Canada is the name tag for the Alberta Gas  
9 Trunk Line Canada Limited, which we have just briefly  
10 before described as our new federally incorporated  
11 wholly owned subsidiary,

12 "for the facilities which is the subject  
13 of the pending applications, AGT Canada  
14 will make application for certificates of  
15 public convenience and necessity in respect  
16 of all additional new facilities which will  
17 be from time to time required for the trans-  
18 mission through Alberta of natural gas origin-  
19 ating from sources outside the Province of  
20 Alberta and particularly from the Beaufort  
21 Basin.

22 These additional new facilities will be  
23 constructed and operated by AGT Canada,  
24 subject to the jurisdiction and control  
25 of the National Energy Board. To the end  
26 that AGT Canada Ltd. will own a continuous  
27 42-inch pipeline with its own right-of-way  
28 from a point 6 1/2 miles within the North-  
29 west Territories to the Alberta boundary  
30 at Empress, and operate it subject to the



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1 jurisdiction and control of the National  
2 Energy Board. Construction of this continuous  
3 facility will be completed as soon as useful  
4 to provide economical services, and AGT Canada  
5 will commit that it will be completed in  
6 any event within five years of the commencement  
7 of the flow of the said gas.

8 AGTL undertakes that during the period of  
9 buildup in volumes for AGT Canada,"

10 that's the period up to five years,

11 "and generally thereafter it will provide to  
12 AGT Canada the use of existing capacity in  
13 those AGTL facilities, which have been installed  
14 to transport gas produced from Alberta source  
15 fields. Such use to capacity will be conveyed  
16 by way of lease or transfer of the facility, or  
17 by other suitable contract, and will provide  
18 for entire compliance with authority of the  
19 NATIONAL Energy Board with respect to traffic  
20 tolls and tariffs, and control of interprovincial  
21 transmission."

22 That's the end of the quotation.

23 Q Well, this comes back to  
24 our discussion a little earlier. Is that the document  
25 that you say has resolved the problems created by  
26 the incorporating Statute?

27 A It's one of the documents  
28 that, as I say, there's a whole filing been made some  
29 months ago which provides various expressions of this  
30 mechanism through this business of tariffs and the



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Cross-Exam by Goldie

1 filing of tariffs and this whole business of putting  
2 in an application. It's a key document, but not by  
3 any means the whole story.

4 Q Is there any further,  
5 let me put it this way, and we can leave the point.  
6 Is there any further document which spells out the  
7 obligations of Alberta Gas Trunk Line (Canada) to use  
8 the facilities of Alberta Gas Trunk Lines in Alberta?

9 MR. GIBBS: Mr. Commissioner,  
10 my friend knows as well as most people here involved  
11 in these matters that in the order preceding the  
12 pre-hearing conference before the National Energy Board  
13 in Ottawa in July, or one of the other documents at  
14 that time, we were instructed by the National Energy  
15 Board to provide a further document setting forth the  
16 mechanics and pro forma contracts and so on which would  
17 accomplish this. Now this is a very complex matter  
18 because it involves financing documents and so on. That  
19 is in preparation and will come into being at some time  
20 in the future. I believe that's the only document,  
21 other than the one filed and the one Mr. Blair refers  
22 to.

23 MR. GOLDIE: Thank you.

24 A Mr. Gibbs is entirely  
25 correct, but also the question I think tailed off or  
26 it came to the focus of obliging AGT Canada to use  
27 the facilities of Alberta Gas Trunk Line, which isn't  
28 really, I think, a good characterization of this docu-  
29 ment, I just wanted to bring that out.

30 Q It was a very loosely



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1 phrased question.

2 A O.K.

3 Q Nevertheless, the trans-  
4 mission of gases to be effective, there will have to  
5 be an obligation, won't there?

6 A Not in the direction you  
7 describe. The obligation is by Alberta Gas Trunk Line  
8 to furnish these facilities when it has them, when it's  
9 economic to AGTL Canada. We haven't obliged AGTL  
10 Canada to selectively always use those facilities.  
11 I think the beauty of this arrangement is that AGTL  
12 Canada can each time make a decision as to whether it  
13 is better to put in a section of new continuous line or  
14 under the National Energy Board's authority to consider  
15 that alternative compared to leasing or acquiring  
16 the use of a provincial facility, and at any time it's  
17 more economical or better strategy to go ahead with a  
18 continuous line, AGTL Canada would be completely free to  
19 do that. I think that way the federal interest gets  
20 the best of both worlds.

21 Q If AGTL Canada's under-  
22 taking to provide a complete system within five  
23 years is to have any meaning at all, there will have  
24 to be an obligation, won't there?

25 A No, I don't think you  
26 understand.

27 Q Well, you're qualifying  
28 that undertaking that you read to me a few minutes ago.

29 A I'm not qualifying any-  
30 thing. I don't think you understand, the undertaking is



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1 to provide, the construction of this continuous  
2 facility will be completed as soon as useful to provide  
3 economical services and AGT Canada will commit that  
4 it will be completed in any event within five years of  
5 the commencement of the flow of the said gas.

6 Q You say that will involve  
7 no use of an AGTL facility at all?

8 A No, I didn't say that  
9 either.

10 Q All right. Excuse me,  
11 Mr. Commissioner. I want to be sure that I've got  
12 this right. That undertaking then, if it is not  
13 qualified, is an undertaking regardless of the avail-  
14 ability of gas.

15 A Yes, yes, that's fair,  
16 as between AGTL Canada and the Government of Canada,  
17 that would be so. I suppose that as a practical matter  
18 it's unlikely that the National Energy Board would  
19 insist that AGTL complete the undertaking as a matter  
20 of form in the absence of sufficient gas, but this  
21 is the way we put it, that "we'll give you a complete  
22 federal pipeline in five years by construction or  
23 acquisition, according to the best interests of the  
24 federal system, furnished by AGTL Canada."

25 Q And prior to that, on  
26 completion of that system there will be a use of the  
27 AGTL facility.

28 A Yes.

29 Q And the buildup of those  
30 facilities between now and 1979 or 1980, whenever you



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Cross-Exam by Goldie

1 anticipate gas flowing from the Arctic, will be  
2 without reference to the National Energy Board.

3 A If the buildup is  
4 accomplished entirely by the Alberta Gas Trunk Line  
5 Company Ltd. as such, it would certainly occur without  
6 application by the company to the National Energy  
7 Board. The National Energy Board would keep, as always,  
8 well-informed, but it would be without application.  
9 But it doesn't necessarily follow it will occur like  
10 that. It's an interesting alternative that AGTL Canada  
11 might in those years commence the installation and  
12 ownership of portions of line which were in part anti-  
13 cipatory of moving Arctic gas in the future. We just  
14 haven't decided that yet.

15 Q Another point on page  
16 22, the first complete unnumbered paragraph about  
17 2/3 of the way down the page, you made reference to  
18 this again, that you have done business at arm's  
19 length with U.S. Companies. Are you referring to that  
20 in your capacity as AGTL or in your capacity as president  
21 of Pan-Alberta?

22 A Oh, I would think of it  
23 in various ways. As president of AGTL or president  
24 of Pan-Alberta, as a director of Alberta Gas Chemicals,  
25 as president of Portable Pipe Mill Company that's  
26 selling structural equipment to the Alyeska project,  
27 and generally what I wanted to bring out here was  
28 in case someone thought we -- that the national concerns  
29 and sensitivities we've expressed elsewhere here are  
30 characterizing us as an isolationist organization that



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1 says it's just going to go straight ahead in Canada  
2 because there's a boundary and have nothing to do  
3 with business across it, but I wanted to offset that  
4 if there was any such impression and say, "Well, O.K.,  
5 we're very apprehensive about the international compli-  
6 cations in this particular big project, but we can  
7 deal with United States companies. We would like it  
8 to be at arms' length customers rather than as co-  
9 owners of Canadian projects," that's what I had in mind.

10 Q Pan-Alberta was the  
11 last company to apply for export of natural gas. Am  
12 I right in that?

13 A I don't know. It did have  
14 an application to export gas from Canada which a couple  
15 of years ago it withdrew on its own initiative, and  
16 whether or not that was the latest, I don't remember.  
17 It may have been.

18 Q The application was  
19 withdrawn when?

20 A Oh, a couple of years  
21 ago. I don't remember. It was more than a year ago  
22 and less than three. It would be easy to establish on  
23 the record, I don't remember.

24 Q Well, perhaps I'm sort  
25 of asking you to tax your memory, perhaps Mr. Gibbs  
26 could supply me with the date the application was made,  
27 the date the application was withdrawn, and the volumes  
28 in question. Is that satisfactory to you?

29 MR. GIBBS: Not unless my  
30 friend makes it appear relevant to this Inquiry.



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1 MR. GOLDIE: All right, I'll  
2 make it appear relevant.

3 Q Would you turn to page  
4 13, please? At the bottom of the page you talk about  
5 a particular symptom of this was the statements being  
6 made on behalf of a group by its management, alleging  
7 the necessity of exporting Mackenzie Delta gas to  
8 the U.S., and alleging if necessary to piggy-back the  
9 new Canadian gas sources on movement of Alaskan gas  
10 across Canada.

11 A Right.

12 Q First, what are the  
13 statements that you are referring to there?

14 A Many public statement --  
15 publicly reported statements particularly of the  
16 chairman, Bill Wilder, I think, in some matters by  
17 Vernon Horte and other members of management.

18 Q Well now, I suggest to  
19 you that at the time the application was approved for  
20 filing, the Study Group was being told by its manage-  
21 ment it was highly unlikely that there would be any  
22 surplus gas in the Mackenzie Delta. Would you agree  
23 with that?

24 A I wouldn't disagree with  
25 it. I don't remember that particularly. I know that  
26 has been a more recent posture. I kind of doubt it.  
27 I really think if you approved for filing in early  
28 '74, I doubt it. I think that that position emerged  
29 rather later than that, in the later part of '74 coming  
30 up to this year, as I remember.



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1 Q It was while you were  
2 in the Study Group, wasn't it?

3 A Yes, I think you're  
4 closer then. I think it was -- we left the Study Group,  
5 I guess, in September, and I think it was maybe start-  
6 ing to emerge then. September of 1974.

7 Q Yes, and I suggest to you  
8 it was substantially before you left. Your recollection  
9 is that you don't think it was as far back as the time  
10 it was approved. The filing was approved -- the appli-  
11 cation was approved for filing.

12 A Yeah, well, I mean my  
13 answers are still good. That one I remember. I don't  
14 think it was substantially before we left. If it was  
15 occurring that early, I think it was more like the  
16 summer of '74 because that was still one of our points  
17 of contention.

18 Q I suggest to you that  
19 your application, Pan-Alberta, to export gas was  
20 still outstanding at the time that you were referring  
21 to in that paragraph.

22 A I don't know. I wouldn't  
23 have thought so. It could have been. I kind of doubt  
24 that one, too.

25 Q May I have the dates,  
26 please?

27 MR. GIBBS: Well, Mr. Chairman,  
28 Mr. Commissioner, I don't have those dates at my  
29 fingertips, but I think my friend ought to be fair in  
30 this line of questioning and go on to point out that



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1 application to export gas from Canada was based upon  
2 that export being replaced from Alaska Gas. So that  
3 it really has nothing to do with whether there was  
4 surplus gas or not. In the long run it was a loan to  
5 be replaced.

6 THE COMMISSIONER: You're  
7 speaking of the Pan-Alberta?

8 MR. GIBBS: Yes sir.

9 MR. GOLDIE: Well, I was  
10 asked to indicate the relevance and of course I expect  
11 my friend to have that material here. All I was  
12 concerned with was that there was another suggestion,  
13 it's not the only one, that the management of this  
14 company was export-oriented. There are a number of  
15 places where that proposition was made, and I consider  
16 it relevant in meeting that proposition to know when,  
17 and indeed to show that an affiliate or subsidiary of  
18 Alberta Gas Trunk was making an application to export  
19 at this very point.

20 MR. GIBBS: Well, sir, you know  
21 these are matters of public record. If my friend wants  
22 me to produce a copy of the National Energy Board  
23 application and file it here, and if you say that it's  
24 a relevant document, I will do so.

25 MR. GOLDIE: Thank you.

26 MR. GIBBS: If he wants some  
27 firm date on when the application was withdrawn, I  
28 will obtain that date and provide him also. But I  
29 do object to leaving these things half-said. If he's  
30 going to deal with that application, in my submission



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1 the whole thing should be in.

2 MR. GOLDIE: Well, all I  
3 asked for were dates.

4 MR. GIBBS: We appreciate  
5 that's all you asked for, but that leaves then an  
6 impression that Mr. Blair on one hand was trying to  
7 export gas, and on the other hand saying there wasn't  
8 gas to be exported, and that was not the case in  
9 Pan-Alberta and that should be clear.

10 THE COMMISSIONER: Well, you've  
11 been asked for the dates. I think it's been shown that  
12 they are relevant to the evidence Mr. Blair gave in  
13 chief. I think you should let us have the dates, and  
14 you're entitled to re-examination to bring out the  
15 explanation that you've offered, yourself, I take it  
16 as counsel, not as a director of Alberta Gas Trunk.

17 MR. GIBBS: ALL right.

18 MR. GOLDIE: One further  
19 question, Mr. Blair.

20 Q When you drafted that  
21 answer, were you aware of the evidence that Mr. Horte  
22 gave before the National Energy Board in its supply  
23 and deliverability hearings earlier this year?

24

25

26

27

28

29

30



1 A That he gave when?

2 Q My recollection is  
3 February of this year in the supply and deliverability  
4 here.

5 A No, not in particular,  
6 but I was not unaware that by that time what  
7 Mr. Horte was expressing in his official position  
8 was much as you described that it was unlikely that  
9 in his view that Canadian gas would be available  
10 in export quantities from Mackenzie Delta  
11 sources, if that is what you wish me to come to.  
12 I was aware of that.

13 Q I just wanted to know  
14 if you were aware of it when you drafted that  
15 evidence, and I take that you were not aware of  
16 the evidence that he has given before this Commission  
17 on that subject?

18 A I am aware in a general  
19 sense of it. I think that as you asked me about  
20 what I was aware of when I drafted the evidence,  
21 it does deserve being pointed out that this evidence  
22 was drafted recently and is here referring to an  
23 event of withdrawal which began in September of 1974.

24 One of the reasons that we did withdraw was  
25 because we felt that the Canadian case was being  
26 undersold and one of the natural consequences of  
27 our withdrawal and putting on the pressure that existed  
28 in this project we think includes a greater recognition  
29 that that wasn't the case, so I don't find these  
30 things as contradictory and I am glad that Arctic Gas



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1 is coming to -- or has come concurrently and perhaps  
2 accidentally to the same view.

3 Q Why accidentally?

4 A I say perhaps accidentally  
5 because I don't mean to imply that they were doing  
6 the through the influence of our position. I don't  
7 know to what degree that really happened if at all.

8 Q Might not it have come  
9 about through the examination of reserves?

10 A Oh, yes, I wasn't being  
11 casual about meaning accidentally, I meant  
12 coincidentally if you like, it may be that we  
13 weren't watching each others public positions, and  
14 may be we were, but we've ended up with a similar  
15 view on that subject anyway.

16 Q You know, Mr. Blair,  
17 as you were a member of the Arctic Gas management  
18 committee at the time, that the filing of Canadian  
19 Arctic Gas with the supply and deliverability  
20 hearing indicated that there was no surplus of Canadian  
21 gas and that was something that Mr. Horte had  
22 been saying for some time. Am I not right in that?  
23 Or had you ceased to attend the management committee  
24 meetings by that time?

25 A I think I had because  
26 I don't particularly remember that. But if you  
27 say so, I accept it.

28 Q I am not saying any-  
29 thing. Mr. Blair, I think we have got to a point  
30 where we are agreed that the aims of the two -- by



S.R. Blair  
Cross-Exam by Goldie

1 aims I mean the broad aim of transporting frontier  
2 gas to markets of <sup>the</sup> two countries, was the same in  
3 the two constituents of the merged study group and  
4 it continued in the merged study group and you  
5 have stated that you have changed your mind about  
6 the Arctic Gas proposal and I think on page  
7 14 you give in a summary way the reasons and I  
8 put it to you that those numbered reasons, one,  
9 and then over on page 15, two and three, set out  
10 the real concerns that led you to leave the  
11 Arctic Gas project.

12 A No, that's not right.

13 First again, as you put  
14 the question, you said the aims were the same when  
15 we merged and I think twice before -- I said not  
16 really, they were only the same to the extent that  
17 we were not interested in moving Alaskan, at that  
18 stage Alaskan and Canadian Arctic gas to markets,  
19 that far we were the same. Beyond that our aims  
20 were considerably different and I think that we  
21 have been as consistent in our aims in these five  
22 years as anyone. It wasn't that we changed afterwards,  
23 it's just that we didn't get our aims expressed  
24 well enough in the big group.

25 But then when you come  
26 to the second part -- I wanted to go back to your  
27 question and pick that up -- but then when you come  
28 to the second part and say are these the reasons  
29 that -- the real reasons that we withdrew, and the  
30 answer is no, they are some of them, but they are not



1 in whole the real reasons. I still have to  
2 my reply to you on what the basic reason was for  
3 our concern about the project leadership from the  
4 Canadian viewpoint and it is in that answer which  
5 I can proceed with now, if you like, that's the  
6 one I started in before and then you said that you'd  
7 give me another chance to think, then I will give  
8 you the real reasons.

9 Q Well, those concerns  
10 are reasons, nevermind about you for a minute,  
11 they are matters of concern with respect to the  
12 project that you conceived for the Gas Arctic  
13 Systems Project, aren't they?

14 A No, you've lost me  
15 now. These are reasons of concern with what  
16 was then the Arctic Gas project.

17 Q No, no, I would like  
18 you to go back a step. We'll get out of this  
19 question of whether you had unexpressed reservations  
20 about the Arctic Gas Project and whether you let  
21 people know about them, go back to your own project,  
22 the Gas Arctic Systems project.

23 A Okay.

24 Q All right. Now,  
25 those three reasons -- or three concerns, however  
26 you might want to express them, first, it might  
27 be decided that much of the Alaskan gas could be  
28 used inside that state. Now, that was a matter  
29 of a possibility which would be injurious to the  
30 Gas Arctic Systems Project, wouldn't it?



1 A Yes, I understand  
2 you are asking if we take these concerns expressed  
3 about Arctic Gas Project.

4 Q Yes.

5 A And then imagine them  
6 being transferred back into an earlier point in  
7 time when what we were involved with was the  
8 Gas Arctic Project.

9 Q Yes.

10 A Would they not have  
11 applied to that project -- yes, they would have,  
12 I guess, one, two, three, -- each one of them would  
13 have.

14 Q Now, three makes specific  
15 reference to Arctic Gas, but the same problems of  
16 financing in an even more accentuated way would apply  
17 to the Gas Arctic Systems Project.

18 A No -- you've got that  
19 backwards because the problems would have been less  
20 in the Gas Arctic Project because it was a much  
21 more modest project than is the Arctic Gas project  
22 and so the problems of financing and so on would  
23 have been less accentuated if we imagined these  
24 related back to the Gas Arctic Project.

25 Q Well, but for those  
26 three considerations, the concept which you first  
27 espoused would be the one you would prefer, do  
28 you agree with that?

29 A No, not any more. If  
30 you are saying what would I prefer now, the answer



1 would be no. The project which we first espoused,  
2 I have come to learn was not as well conceived as  
3 it should have been and I would not prefer it now,  
4 with or without these considerations.

5 Q I thought you said a  
6 few minutes ago that you hadn't changed your mind,  
7 but you are telling me now that you have.

8 A No, I said that  
9 we had been, I think relatively consistent during  
10 the five year period because I think we have, but  
11 I don't mean that we have been fixed in a one track  
12 of thinking for five years by any means. We changed  
13 our mind a lot, we've learned a lot in five years.  
14 A whole lot.

15 Q But isn't it a much  
16 shorter period of time than that, when you first  
17 withdrew from the Gas Arctic Project, did you not  
18 describe Foothills as an alternative to be considered  
19 in the contingency of one or more of these three  
20 considerations arising?

21 A Yes, we described it as  
22 an alternative. I am not sure that we have listed  
23 these three reasons as the basis for creating an  
24 alternative. We did describe it as an alternative.  
25 It is quite true that since we left the bigger  
26 group our own respect for the project which we  
27 now put forward and our concern with the Arctic  
28 Gas Project, have both grown considerably and we  
29 describe our own project now much more strongly  
30 than we did when we withdrew from the Arctic Gas



S.R. Blair  
Cross-Exam by Goldie

Q Yes, I quite agree.

YOU have moved from a position of having identified three problems in relation to the Arctic Gas Project and describing the Foothills as an alternative in the event of a contingency arising out of one or more of those to a position where you are seeking to insure that one or more of those contingencies does arise.

A No, that's not --

that doesn't follow. We've emerged from a situation in which we saw these three contingencies in which we continued to see and were very strongly expressing in the privacy of the Arctic Gas meetings our list of other concerns about the Arctic Gas Project which go far beyond these three. These weren't our real fundamental reasons. Our real reasons had to do with the nature of the Arctic Gas Project itself. We have emerged from that condition about a year ago into a condition now in which we believe we've got the best project anyway by any measure and whether or not these three contingencies arise that we have an application that is well worth a thorough airing and sponsorship. That is the evolution that has occurred. We don't see it any longer only as an alternative or a contingency, we see it as the more we study it the more we think it is a better proposal in the first place.



1 Q Wasn't the alternative  
2 or contingency expressed in May of 1974 to be on the  
3 grounds that there was urgent public need for  
4 Canadian gas, and that these considerations might  
5 delay the introduction of Canadian gas to Canadian  
6 markets?

7 A That was one of the  
8 grounds, and I remember that this was expressed and  
9 expressed in writing, and a whole list of other  
10 grounds about concern of lack of sensitivity to  
11 Canadian issues. Concern about inability to meet the  
12 aspirations of the western Canadian provinces and  
13 other problems that we saw were all -- we reminded the  
14 members that we had all these problems and we weren't  
15 feeling satisfied about progress towards them.  
16 They included the one that you've mentioned.

17 Q What time do you propose  
18 adjourning for lunch, Mr. Commissioner?

19 THE COMMISSIONER: 12:30, but  
20 if this is convenient, we will adjourn now.

21 MR. GOLDIE: It might assist  
22 me in going into another area.

23 THE COMMISSIONER: Certainly.  
24 Well, we'll adjourn until 2:00 and we will go from about  
25 2 until about 4:30, will that be all right Mr. Scott?

26 MR. SCOTT: Mr. Commissioner,  
27 could I recommend the reading by Mr. Gibbs and Mr.  
28 Goldie of the Order in Council empowering you to  
29 decide, over the luncheon interval. I am sympathetic  
30 with Mr. Goldie, because much of the matters that seem



1 to me irrelevant are raised in the evidence in chief,  
2 and it seems to me that much of the matter is within  
3 the exclusive jurisdiction, if anybody of the National  
4 Energy Board. I now understand why Mr. Goldie is here,  
5 rather than Mr. Genest, or Mr. Marshall.

6 MR. GOLDIE: I was just going  
7 to say, how sweet that music is to my ears.

8 MR. GIBBS: It follows up on  
9 Mr. Horte's direct evidence as well, so don't --

10 THE COMMISSIONER: Yes, well,  
11 let's not go into that now.

12 Could I ask a question  
13 Mr. Blair? In this project, the Arctic Gas project,  
14 the arrangement is that the oil companies, the  
15 producers of gas in the Mackenzie Delta and the Beaufort  
16 Basin will build the gathering lines and gas plants.  
17 The corporation established that will be established  
18 to build the pipeline, or has been established, excuse  
19 me, Canadian Arctic Gas Pipeline Limited, will only  
20 build and operate the pipeline and will receive the  
21 gas after it has been gathered and gone through the  
22 gas plant.

23 Now, in the Alberta Gas  
24 Trunk system, does Alberta Gas Trunk operate the  
25 gathering lines and the gas plants?

26 A No sir, except on a very  
27 occasional and almost incidental basis. The  
28 relationship is basically similar in that the producer  
29 drills the well, gathers the gas from the well, takes  
30 it to a processing plant, and there cleans it up to



1 mercantable quality. The system to take the gas into  
2 the processing plant is often called a gathering system,  
3 and the distinctive word that helps us is that it is  
4 normally called the field gathering system. Then from  
5 the outlet of these various processing plants, a couple  
6 of hundred outlets in Alberta, the Alberta Gas Trunk  
7 Line operates a network of lines which first of all  
8 brings the gas from the individual plants to mainlines  
9 and then moves the gas to its' markets.

10 The facilities that are  
11 used between the gas processing plant and mainlines are  
12 also called gathering systems, and that is where the  
13 confusion arises. There are gathering systems on both  
14 sides of the plant.

15 Q I see that the field  
16 gathering system and the gas plant are operated by the  
17 producers in Alberta?

18 A Normally, I think, we  
19 operate a few percent of them, but the vast majority  
20 are operated by the producers.

21 Q And the gathering system  
22 that you operate is the gathering system from the gas  
23 plants to the mainline?

24 A Yes, that is correct sir.

25 Q I visited the Amoco  
26 operation at Fort Liard last month. I'm sure somebody  
27 told me this, maybe you can explain it to me, so I am  
28 not mistaken. The gas field and the gas gathering  
29 system from the field to the gas plant, and the gas  
30 plant itself, are all operated by Amoco. Am I right?



S.R. Blair  
Cross Exam by Mr. Goldie

1 A I believe so, yes.

2 Q And Westcoast picks the  
3 gas up from Amoco at the gas plant?

4 A Yes. There is a  
5 distinction in that that particular operation  
6 I know that Westcoast gathers gas which is not entirely  
7 processed and takes it down to still another processing  
8 plant operated by Westcoast. But that is a situation  
9 particular to the industry in Northeastern British  
10 Columbia and the Northwest Territories. In Alberta  
11 generally the final processing occurs right at or  
12 near the field.

13 Q Well, TransCanada starts  
14 at Empress. The TransCanada Pipeline system, and  
15 they would not have any gathering lines there, they  
16 would just hook into AGTL would they?

17 A Yes, sir, exactly.

18 Q And if you were to be  
19 certified by the National Energy Board, and the  
20 Government of Canada were to uphold that certification,  
21 you would propose the same arrangement, no doubt you  
22 have in all of these papers, but I haven't read them  
23 since they were filed yesterday. You would propose  
24 the same arrangement vis a vis the producers in the  
25 Delta and the Beaufort Sea?

26 A Yes, exactly the same.  
27 At least supposing that the policies which are  
28 operating in Alberta Gas Trunk and in British Columbia  
29 by Westcoast Transmission are those which would persist  
30 in Foothills which I think is predictable, then we



S.R. Blair  
Cross Exam by Mr. Goldie

1 would take the position in Foothills that at least the  
2 first opportunity to gather the gas from the field  
3 and process it naturally existed with the producing  
4 companies as the matter of industry practice and  
5 tradition. Because of course that produces commodities  
6 other than gas which the producer wants to sell himself,  
7 he doesn't want to turn the raw gas over to somebody  
8 who will then be competing with him by selling  
9 condensate or other commodities.

10 In the event that some  
11 producer or group of producers did not want to put in  
12 gas processing or field gathering systems, then as  
13 does occur in Alberta and British Columbia, I think,  
14 I know , to be consistent we would be prepared to step  
15 into that role to see that the job was done. But we  
16 don't regard it as a role that we should preempt. We  
17 believe that it ~~trad~~itionally belongs to the producing  
18 industry.

19 THE COMMISSIONER: All right,  
20 well we'll adjourn until two then.

21  
22 (PROCEEDINGS ADJOURNED)  
23  
24  
25  
26  
27  
28  
29  
30



S.R. Blair  
Cross-Exam by Goldie

(PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

MR. SCOTT: May I introduce  
Mr. Goldie?

MR. GOLDIE: Mr. Commissioner,  
no doubt you will be delighted to hear that having  
regard to Mr. Scott's admonition, I spent the noon  
hour reading the order-in-council and as a result cut  
out five pages of my cross-examination. The effect  
was spoiled when I found that I'd already asked those  
five pages.

Q Mr. Blair, I wonder if  
we might turn to page 20 of your prepared evidence?  
In the answer to question 25 you say, and I quote:

"We believe that the gas reserves that have been  
identified so far in the delta are sufficient  
for the filing in the hearing of applications  
for a certificate to provide for their pipeline  
connection. We believe that those reserves now  
identified, plus the additional reserves which  
can reasonably be expected to be identified as  
supply sources to the pipeline during the next  
year or two will be sufficiently timely to  
obtain financing."

What is the level of reserves you consider you require  
in the delta for the purpose of making Foothills  
feasible? Just in round numbers.

A I don't think we can  
give a single number in response to that question,  
which gives a sufficient answer. I think that the  
quantity of reserves that is deemed sufficient to



S.R. Blair  
CrossExam by Goldie

1 proceed with financing will depend at the time of  
2 financing in part upon the appraisal then of the  
3 ultimate prospects of gas development in the area, and  
4 will depend upon the urgency, if any, of requirements  
5 of that gas for Canadian markets, and will depend to  
6 a degree upon a negotiation which is still to occur  
7 between the company having a certificate and the  
8 institutions which would furnish debt capital and  
9 which, according to normal practice, would require or  
10 at least seek some minimum level of proof of reserves  
11 as part of their obtaining security for the funds that  
12 they advance, and I think that each of those factors  
13 might vary the number that you invited me to give, up  
14 or down. I think it is conceivable that the pipeline  
15 could be financed with reserves of the general order  
16 of a little more than those that exist now, or it  
17 might be desirable that there be quite a bit more gas,  
18 there are different calculations that can be made to  
19 give weight to those factors.

20 Q Well, I take it from  
21 your answer that you have no figure in your mind--when  
22 I say "your mind" I mean the collective corporate  
23 minds of Foothills, AGTL, of a figure of reserves  
24 necessary for feasibility. Am I correct in taking  
25 that from your answer?

26 A You are correct that we  
27 have no one single figure in mind at this stage as  
28 a minimum level of proven reserves requirement. We think  
29 the job is, as always, to get the prolific new supply  
30 area connected and that the measurements of proven



S.R. Blair  
Cross-Exam by Goldie

1 reserves in the pre-project stage is not an exact  
2 or definite matter to be quantified in the way that  
3 you are suggestin g.

4 Q And does it follow from  
5 that that you have no one figure of deliverability?

6 THE COMMISSIONER: Excuse me,  
7 Mr. Goldie. Excuse me, Mr. Blair. That's a word that  
8 has -- does not that have a special meaning in this  
9 harrin g? If it does, could you --

10 MR. GOLDIE: I'm using it  
11 and the witness, who is of course much better qualified  
12 than I am can perhaps elaborate on it. I am simply  
13 using it in the amount of gas daily available for  
14 pipeline throughput, which is of course in some measure  
15 a function of the total in-place reserves.

16 Q Now, do you understand  
17 my use of the word "deliverability" in that sense?

18 A Yes, but I think that  
19 it deserves to be added that while to a degree that  
20 daily quantity is a function of the reserves that  
21 have been proven, it is even more a function of the  
22 physical capability of the wells to produce gas in the  
23 early years, and of the readiness of the producers to  
24 install the right sizing of processing and gathering  
25 capacity, and to drill development wells from year to  
26 year after that so that it's a number significantly  
27 different from simply a reserve number divided by  
28 so many days of the year.  
29  
30



S.R. Blair  
Cross-Exam by Goldie

1 Q When I said the amount  
2 of gas available data I intended to comprehend in  
3 that the reservoir characteristics and all the other  
4 matters that you have in mind. But my question  
5 was, you do not have, or do you, a deliverability  
6 figure that you consider necessary to attain  
7 for the purposes of feasibility?

8 A No, we don't believe  
9 again that any one figure would be a correct or  
10 sufficient answer to that question. We have given in  
11 evidence our assumption which is we think good for  
12 the time being that the capability of the producers  
13 to deliver will begin at about 800 million cubic  
14 feet per day in the first year of operation and will  
15 increase in increments of about 400 million cubic feet  
16 per day per year for several years and we think  
17 that that will occur and that it is entirely feasible  
18 to proceed with that much gas.

19 Q What are the reserves  
20 that you have assumed in relation to the daily  
21 throughput of 800 million cubic feet a day?

22 A Well, we haven't actually  
23 assumed a reserve. What we have done is taken the  
24 assessment of our consultant that the present, that  
25 is, last calculation, before the last wells were  
26 drilled in the last couple of months, that the  
27 present of the proven and probable reserves in the  
28 area of 7.2 trillion cubic feet, as I recollect,  
29 this is in all kinds of detail in these exhibits  
30 of course, and that that figure will gradually grow



1 up to I think about 18 trillion cubic feet over the  
2 next several years and we have assumed that our  
3 consultant is a reasonably good forecaster for that  
4 purpose.

5 Q At any rate the starting  
6 point that you have used is a figure of 7.2 t.c.f. of  
7 proven and probable reserves as they now have been  
8 calculated?

9 A That is my recollection.  
10 I am apparently going to be refreshed here.

11 Our consultants informed  
12 us and I refer to page 1A-42 of exhibit 194, being  
13 part one of the Foothills presentation and I wasn't  
14 exactly right. As of the end of last year the  
15 consultants' advice to us was that the initial  
16 appreciated probably which includes proved reserves  
17 is 7.459 trillion cubic feet and that the other --

18 Q Could we pause there and  
19 I don't want to stop you from going on to the  
20 estimates of future additions, but I just want to  
21 direct your attention to estimate of present,  
22 probable reserves of 7.459 t.c.f. Would you agree  
23 with me that financing is not done on the probability  
24 of future additions but is done on present reserves?

25 A No, and I wonder if  
26 I might have the financing plan volume. Within our  
27 financing plan portion of our submission which  
28 is contained in exhibit 197, being part four of the  
29 Foothills filing, there is a particularly apt reference  
30 which it may take me just a moment to leaf to, sorry --



1 the faster thing is to say that if there is language  
2 under the tab "Financial Plan C" which reflects the  
3 views of our financial advisors that the financing  
4 institutions, the lenders, take into account both the  
5 presently proven reserves and the potential of the  
6 area to develop additional gas supply in the future  
7 and I might add another testimony which I noted  
8 from the expert witness of yesterday, which I thought  
9 the words were so apt I scribbled them down here,  
10 when he spoke of the need, Mr. Horte spoke of the  
11 need of incentives of producers so that there would  
12 be developed the "future reserves that any pipeline  
13 must rely upon". And I think there is a real, from  
14 those two references, I would say that there  
15 is a real element of reliance on the potential on the  
16 area and on future reserve development, it is important  
17 at the time of financing.

18 Q May I go to a segment  
19 of the financial support which is required for a  
20 pipeline, namely the people who buy the first mortgage  
21 bonds, would you agree with me that such people do  
22 not buy bonds unless there is sufficient gas proven  
23 to provide for the amortization of those bonds?

24 A Well, I think you have  
25 put your finger on the one group of investors to  
26 whom this is apparently of concern, in our experience  
27 the sellers of -- the buyers of unsecured debentures  
28 or secured debentures, don't normally introduce an  
29 element in the negotiations of assurance of reserves.  
30 The holders -- the buyers of first mortgage bonds



1 traditionally have done so and what they have  
2 required, they've introduced such a provision,  
3 and what they have normally sought in such a provision  
4 was a demonstration by a consultant acceptable to  
5 them, sufficiently conservative and prudent consultant  
6 for their purposes, that there will be sufficient  
7 throughput for the pipeline during the term of the  
8 first mortgage bonds, whatever that may be negotiated  
9 at to make it realistic that the service will be  
10 provided, that the revenues will be received and  
11 the financing costs of the principal payment of  
12 principal and interest will be covered. That is the  
13 way that I would define their interest.  
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S.R. Blair  
Cross-Exam by Goldie

Q The capital required to the extent of say 75% of the total is supplied by people who have that requirement.

A Not the 75%, you're high there. First mortgage bonds are, I think, well let's say in the case of the Foothills filing we suppose that the financings of first mortgage bonds -- and I refer to page 4-C-29 if that helps anyone afterwards, on the same exhibit -- will in the aggregate amount to 50 -- I have to add up these in my head here -- 57.9% of the total capital to be raised.

Q That's the first mortgage component?

A Yes, excuse me, I've made a mistake. I didn't say that quite right. It's 57% of the debt. If we put in the terms of the capital to be raised, it is in the aggregate 771 million dollars out of \$1,775 million, so it's about 40-some, 45% or so of the total capital. It's less than I said it was the first time, the proportion.

Q Just so I have it correctly, my question was with respect of that component, they are the people who require the conditions that I have suggested to you.

A You've got the right people. I can describe the conditions a little differently than you, but I think we're talking about the same kind of an assurance, yes.

Q That kind of an assurance could not be provided with reserves of the kind that



S.R. Blair  
Cross-Exam by Goldie

are presently there today. Today.

A I don't know whether it could or not.

Q Well, surely that is the reason why you have made the decision which I take it you were very careful to make, between reserves which are sufficient in your opinion for the filing, and reserves which in your opinion are sufficient for the purpose of financing. Isn't that the reason you've made the distinction in the answer that I have referred you to?

A Yes, and in making the distinction that's saying really we hope there's a lot more reserves that it will make that first mortgage bond financing a lot easier.

Q Yes, but --

A Now I haven't said that I regard the first mortgage bond financing as impossible, I just don't know, impossible with the present level of reserves. That would have to be investigated.

Q -- have you ever, in your experience, known of first mortgage money being made available in the absence of assurance of reserves that would result in the amortization of the line over the life of the first mortgage bonds?

A I can't give you an instance, a certain instance of that having occurred. However, there is a lot of other things in our experience that we don't expect to be repeated in the future. The whole business of the availability of marketing of



S.R. Blair  
Cross-Exam by Goldie

long-term capital has experienced radical changes in the last years, and the attitudes, I think, about the urgency of these projects has experienced radical changes, and I'm just not quite certain what we'll encounter when the time of financing such a pipeline will occur.

Q Do I take it from that answer that you expect the urgency of the need for this gas in Canadian markets will have a beneficial effect on the attitudes of the lenders of first mortgage bonds?

A Yes, perhaps with some intermediate links in that cause and effect chain. I think that that may occur.

THE COMMISSIONER: Well, Mr. Blair, this question came up at Norman Wells about a week and a half ago, you will remember that a young man was questioning you and then I asked you some questions, and on reflecting on it I think his questions were much better questions than mine.

Q You said then, and let me just tell you what question you left with me so that Mr. Goldie can pursue it, if he wishes. You said that there were approximately 7 trillion cubic feet there now, but that was sufficient to justify the application that you had made to the Board; that you had every reason to believe that by the time your construction -- well, let me put it this way -- you had every reason to believe that 11 trillion cubic feet would in due course be found, and that that would



S.R. Blair  
Cross-Exam by Goldie

1 be sufficient to proceed with construction of your  
proposed gas pipeline. You said -- and I may be mis-  
stating what you said -- but let me at least complete  
it and then you can deal with it, you said that if  
the reserves were not sufficient to induce these people  
to lend money, I am told first mortgages when they  
lend it, if the reserves were not sufficient to induce  
them to lend the money, and the urgency of obtaining  
frontier gas were sufficient, then it might well be  
that a guarantee of repayment of principal and interest  
to those bondholders by the Government of Canada would  
be necessary to get the thing going. Have I been fair  
to what you said to us there?

A Your memory has been  
exceedingly good and accurate. There are two elabora-  
tions, though, that I'd like to make to complete the  
answer. The first is that my figure of 11 trillion  
cubic feet was meant to be more illustrative than  
to be a single figure. As I remember in the previous  
question had said, "How could such a figure be derived?"  
I said, "Well, if the term of the long-term bonds were  
15 years, and there seems to be definitely a trend of  
contracting term for availability of long-term bonds,  
and if the volume per day were deemed necessary to  
finance the pipeline were illustratively 2 billion cubic  
feet a day, then two billion a day is  $\frac{3}{4}$  of a trillion  
a year, and that times 50 years produces about 11  
trillion. So that some such calculation -- what I hope  
I said was that some such calculation might apply. I  
didn't -- I still would have preferred not to leave a



S.R. Blair  
Cross-Exam by Goldie

17 single figure. The only other point of elaboration  
I'd make is I think perhaps I said by governments.

Q Perhaps what?

4 A Perhaps I referred to the  
possibility of guarantee by governments. I'm thinking  
that possibly the Government of Canada or possibly the  
governments of provinces or some combination of the  
governments of provinces and the Government of Canada  
might apply to this project, as for instance they have  
in the case of the Syncrude project and as they did  
in their time in the case of the TransCanada project.

Your recollection was  
perfect, I just take the opportunity to expand a little  
bit on what I meant to be saying that afternoon.

THE COMMISSIONER:  
Perfect, as far as it  
went, but thank you for refreshing my memory about it.  
Yes, carry on.

MR. GOLDIE: Well, perhaps I  
can deal with this in a slightly different context.

Q Let's just take the  
figure that you used at Norman Wells of 7 trillion  
cubic feet, and would you agree with me that a 42-  
inch line fully loaded at 1,250 p.s.i. would have a  
capacity of about 2.5 Bcf. a day?

A Depending on compressor  
station and on the -- on compressor station spacing  
and other factors, somewhere from up to about 2.7,  
2.75 billion cubic feet a day, yes.

Q When I said "fully  
loaded" I assumed that you -- I was asking you to



S.R. Blair  
Cross-Exam by Goldie

assume the optimum combination of conditions that you have spoken about, and your answer, I take it, is somewhere between 2.5, 2.7 Bcf. a day.

A O.K.

Q Right. Now, would you agree with me that given 7 Tcf. of reserves that one Bcf. a day is the deliverability available, if that gas is to be spaced out over 20 years?

A Well, yes, the 20 years is 7,320 days, and dividing that into 7 trillion would produce a little bit less than one billion cubic feet a day just <sup>by</sup> a process of arithmetic.

Q Right. So that if one is to compare the availability today of gas that would provide deliverability over 20 years, with the capability or capacity of a 42-inch fully loaded line, we have a loading in the order of 40%.



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Cross-Exam by Goldie

Actually it is less

A Yes, as referred to the

Q Now, the ultimate

A So this is represented

0 And if you assume 1 b.c.f.

A Yes, that sounds about

0 So that the Arctic

A Well, just following



1 it, but the arithmetic sounds correct.

2 Q Now, which line is  
3 oversized in relation to the so-called traditional  
4 approach to pipeline sizing which you have referred  
5 to at page 17 of your evidence?

6 A Well, I don't believe  
7 that a reasonable answer to the last question follows  
8 from the questions and answers that we have just  
9 exchanged. On page 17 we say we consider gas supply  
10 market, requirements, materials available, costs,  
11 they are all taken into account in terms of gas supply  
12 both present and potential, and so are factors of  
13 cost which are not involved in the relationships  
14 you have just described, so I don't -- I think what  
15 we did develop a few minutes ago was arithmetically --  
16 if you take the assumption that the Alaskan gas will  
17 be as much as you say it will, that the assumption  
18 that the Canadian gas will not be as much as Arctic  
19 Gas says it will be, but something less than Foothills  
20 says it will be and add these together, you get  
21 the ratios that you derived. I don't think that they  
22 have to do with the oversizing of pipelines. At  
23 least I missed it if they do, I think you would have  
24 to have a much more thorough review of all of the  
25 factors than that calculation.

26 Q Well, I understood that  
27 you gave your evidence to the effect that the Arctic  
28 Gas line was oversized having regard to factors such  
29 as gas supply and markets, and gas supply is present  
30 gas supply, isn't it?



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A No, not entirely,  
it is present and perspective, I would say.

Q All right, if you increase the gas reserves in the delta for both lines the ratios that I have been giving you continue, don't they?

A No. If you increase the gas supply for both the cases that you described to me, the Foothills, the rate of usage for the Foothills line would accelerate relative to the rate of usage for the Arctic Gas line. It would --

Any given unit of increase in throughput from the delta would have a greater percentage effect on the utilization of the Foothills line than of the Arctic line. I am not saying anything, I am just talking in logical arithmetic to you.

Q Well, let me test what you have just said, if you were sizing for a common project, that is to say, to take account for Alaska gas and Delta gas at this time you would size 48 inch, wouldn't you?

A Yes, I think so. We haven't gone through that exercise lately, but I think if we were satisfied that there would be commercially available a good 48 inch pipe material, I think we probably would. I am giving you just the best guess I can on a matter that we haven't assessed.

Q I accept your best guesses.



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1 And if you've introduced  
2 any Alaska gas into the Foothills system the  
3 42 inch is undersized, isn't it?

4 A No, no actually  
5 our direct testimony said the opposite to that,  
6 it said that it would be a certain capacity to move  
7 some Alaskan gas if Canada wanted that done  
8 through the 42 inch system.

9 Q Well, just so that  
10 we are comparing like with like, if you make the  
11 same assumption with respect to Alaska gas as  
12 you have been doing with respect to Arctic gas, then  
13 I suggest to you that the introduction of two and  
14 a quarter b.c.f. a day results in an undersized line at  
15 42 inches. Isn't that just the converse of your  
16 agreement with me that 48 inches is the appropriate  
17 sizing to carry the flows, the combined flows of  
18 the Alaska quantity I have mentioned at two and a  
19 quarter and the Delta quantity of one?

20 A I think I 've followed  
21 you and agree.

22 Q Thank you.

23 THE COMMISSIONER: Did you  
24 say that you followed Mr. Goldie or is that  
25 sufficient for your purposes?

26 MR. GOLDIE: I thought  
27 he said "and agreed".

A Sir, I said that I  
think I followed him because toward the end I wondered  
for a minute if I was following him, but I think at



1 the end of his question I caught the sense of what he  
2 was saying, but perhaps for certainty, since it  
3 has been raised, if I could restate --

4 THE COMMISSIONER: Yes.

5 A -- what I understood  
6 Mr. Goldie to be saying in the last question and  
7 my answer was that if we were asked to introduce  
8 into the Foothills system as presently designed,  
9 the 42 inch line, 2 1/4 billion cubic feet a day,  
10 on a regular continuous basis, I assume he meant  
11 of Alaskan gas, and if we still had our billion  
12 a day or more of Foothills gas, that there by  
13 Q.E.D. we would have an undersized system and  
14 I said if that was what he meant, I agree that that  
15 is true. If we were to do all these things  
16 all at once from day one, of course we haven't  
17 brought out also that if this happened over a  
18 period of time it could be -- the transaction could  
19 be carried out through some looping here and  
20 there of the Foothills system.

21 MR. GOLDIE:

22 Q Well, you wouldn't  
23 start out with a 42 inch system if you were  
24 undertaking to carry a billion from the delta and  
25 2 1/4 from Alaska.

26 A Certainly not a 42 inch  
27 system of the wall thickness and operating pressure  
28 that we proposed, and I think we would probably  
29 then look at a 48 inch system as an alternative if  
hypothetically we were faced with such a commission.



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Q So the evidence which you gave at the bottom of page 16, the top of page 17 or on page 17, is directed only at the size of the supply laterals.

MR. GIBBS: I think that question 16 starts off saying precisely that.

MR. GOLDIE:

Q And then you go on and ask about the traditional approach to pipeline sizing and it wasn't clear to me that you were confining your question to the laterals or whether you were extending it to a general observation with respect to the Arctic Gas proposal. I just wanted to be quite clear that the witness's criticism if that's what it is, is directed to the sizing of the supply laterals and not to the mainline system.

THE COMMISSIONER: Well, as I read that question, it is directed to the delta lateral. Am I following this?

MR. GOLDIE: Well, when I read the evidence and when I heard it yesterday the question starts out: "I might refer you to some of Mr. Horte's remarks about the CAGPL delta lateral", and he goes on, "and if that is a basis, could I start this series of questions by asking for the traditional approach to pipeline sizing."

THE COMMISSIONER: No, no, I think you are quite right to pursue it.



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2 A Well, the question  
4 then was, is my criticism of sizing confined to  
6 the delta lateral?

4 MR. GOLDIE:

Q Yes.

A The answer is no.



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These are, of course, matters of assessment and some judgment; but our criticism of sizing of the Arctic Gas proposal would centre more on these other two features. The first is its substantially greater capacity overall to deliver gas across the Canadian - United States boundary than to bring gas from the north in total, and I think I can put this in the simplest terms by saying that a reason that we worry about the design and the reason we allege it to be a design for very much for export purposes is that from an Alberta point of view we find ourselves with one proposed 48-inch pipeline, one new 48-inch pipeline coming in through the north end of Alberta, and I think at last count, one new 48-inch and two new 42-inch pipelines go out the south end of Alberta. No matter how you cut that, that goes beyond any subtleties of design calculation as a system which would have the built-in investment to move much more gas out of the south side of Alberta than to bring it in in the north, and it has to be an export oriented design. That's my first criticism.

Q Excuse me. You mean by "export oriented" you mean the carriage of Alaskan gas to the Southern United States, is that what you mean?

A Well, I mean that in the crudest kind of logic, and I think inescapable logic, it means that that system has the capacity basically to move all the Alaskan gas, all the Canadian Arctic gas, and additional Alberta gas out of Canada, as new



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border crossing delivery points. If you put one 48 in the top and you take a 48 and two 42 out the bottom and this is all incrementally new facility, I just, it seems to me when you say, "Why do you think it's export oriented?" That's why, and that's my main criticism.

Q And that was the design you voted in favor of.

A Yes we did

Q Thank you.

A Under the circumstances that we've described -- well no, I didn't let you say "in favor of" before, but we voted, we consented as one member that such an application should be filed, yes.

Q Yes.

A After a good deal of negotiation and some compromise.

THE COMMISSIONER: Now, just looking at this slide, the 48 and 42 are the three here, I take it. Are they?

A Yes sir, I refer-- what I referred to is the 48 as going out the south side is that line heading to the middle west under the auspices of a number of members of Arctic Gas who -- I forget what they call themselves, but there's a sub group of Arctic Gas --

MR. GIBBS:

Northern Border .

A -- that I understand has applied for a whole new 48-inch in that direction across



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South-western Saskatchewan and to the States, and the last time I heard, there were still before the Federal Power Commission applications for two 42-inch lines to carry gas to California, which would be indicated by the two western arrows.

MR. GOLDIE:

Q Well, you have heard and I don't want to go through this all again, but you were aware, I assume, or your company was aware when you voted for this design of the design assumptions and --

MR. GIBBS: I think my friend should be a little more careful and accurate in his questions. Mr. Blair, I think, has not said he voted for design. I think he said his company consented to the filing of an application. There is a difference.

MR. GOLDIE: Well, it's a subtle distinction and I'm beginning to understand it, with difficulty.

Q Mr. Blair, you were aware also that those southern delivery legs are being re-designed in accordance with the gas contract that is being negotiated, aren't you?

A Not particularly. I have heard some conjecture that that would occur but I have no particular knowledge of what design or re-design is or is not being accomplished right now.

Q Have you read Mr. Horte's evidence in these proceedings?

A Not entirely.

Q Perhaps you would, please.



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1 Then you will be better informed next time. Now, just  
taking a look at these exhibits that are the slides --

THE COMMISSIONER: We let those  
things go by. Don't try to catch up with them.

MR. GIBBS: Well, there comes  
a point, Mr. Commissioner, when one is doubtful as to  
what evidence one is supposed to be examining. What  
has been filed in document form or what a witness has  
said on the stand which disagrees with what's filed  
in document form, and that's why I was expressing my  
puzzle here.

MR. GOLDIE: Well, all I was  
asking the witness to do was to read the evidence of  
Mr. Horte with respect to these particular matters  
in these proceedings before making the general statement  
that this was an export oriented line. That's all I'm  
asking him to do.

A Is that a question?

MR. GOLDIE: That's all I'm  
asking him to do.

MR. GIBBS: Well, sir, I hate  
to keep interrupting, but this comes exactly to the  
point I was making. If one looks at the documentary  
evidence that's been filed in Ottawa and here, the  
basis of the tariff calculation is still an assumption  
that half the Canadian gas will go out of Canada. Now  
do we still rely on those documents, or do we rely  
on Mr. Horte sitting in the stand and saying in his  
opinion none of Canadian gas will go out of Canada.  
That's where we get this variation in evidence, and



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it's unfair to say to this witness, "Do you believe Horte or do you believe the documents that have been filed?

MR. GOLDIE: With respect, Mr. Commissioner, all I asked the witness to do was to read the evidence, which he said he was not familiar with, before he made the statements that he did. Now, let's go on with this question because it may be of some further interest.

Q Do you have before you the exhibits which were the copies of the slides you spoke to yesterday? I think it was 218, 219 and 220.

A Yes.

Q No. 1, as I understand it, and by "1", I think it's Exhibit 218, shows existing systems identified by -- what shall we say -- corporate personality?

A Mine aren't numbered but I suppose they're in the same order as yours, and you're referring to this one that shows the three existing systems.

Q All right, let's call that -- all right, that's Exhibit 218, and that shows existing systems. Exhibit 219 purports to show the Arctic Gas proposal, and 220 shows existing systems with an overlay and a reference to the Foothills proposal.

A O.K.

Q Now, going to 218, that is existing systems, as I say, identified, and I use the words "corporate personality" because there are both the color code and initials identifying the



S.R. Blair  
Cross-Exam by Goldie

operator of the system.

A Right.

Q And it shows in Canada or identifies in Canada four systems: Westcoast, Alberta Natural Gas, AGTL and TransCanada.

A Yes, it does.

Q And No. 2 is the same system map on which there has been superimposed something identified as the Arctic Gas proposal.

A That is correct.

Q That doesn't purport to show the so-called corporate personalities, does it?

A No.

Q If one did that there would be an arrow in the portion in Alaska called Alaskan Arctic Gas.

A Yes.

Q And that will have a different ownership, if certificated, than Canadian Arctic Gas.

A I suppose that it would.

Q Well, that was part of the proposal that your company -- how shall we put it.

THE COMMISSIONER: Don't say it.

(LAUGHTER)

MR. GOLDIE: You understood that, didn't you, that there would be a different ownership?

A As I remember, at that time we were still debating a number of major features. The



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Cross-Exam by Goldie

1 proposal was made that it was important to proceed  
2 with an application. We agreed it could proceed as a  
3 matter of expediency while we continued to debate  
4 other matters, and I don't remember that the ownership  
5 of either the Alaskan company or the Canadian company  
6 was very far resolved at that time. As a matter of  
7 fact, my recollection is that neither one was well  
8 resolved, and so I don't think there is any basis to  
9 say the ownership would be different. I always suppose  
10 that the American portion ought to be owned by  
11 American companies and the Canadian portion ought to  
12 be owned by Canadian companies and that  
13 would be different ownership, but that was just my  
14 own judgment of it.

Q I think that was a  
reasonable judgment based upon the provisions of the  
Study Group agreement, would you agree with that?

A Well, I always thought  
it was, but there were lots in the Study Group that  
weren't of the same conviction.

Q I see, all right, and  
again if one is to pursue the question of corporate  
personalities, the Arctic Gas, Canadian Arctic Gas  
would stop at the border, wouldn't it?



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Cross-Exam by Goldie

1 A Well, it was kind of  
2 funny. It was going to stop <sup>in</sup> two places. The east  
3 bound leg would have continued to the international  
4 boundary and stopped there, apparently on the  
5 premise the thing to do was to get the gas  
6 through Canada. The west bound leg would continue  
7 to the western boundary of Alberta where it would meet  
8 the connecting facility of a member of Arctic Gas,  
9 Alberta Natural Gas Company, and it would stop there  
10 apparently on the premise that the thing to do  
11 was to get the gas through Alberta, a little  
12 different.

13 But then there was another  
14 complication in that another customer in California  
15 didn't want its' gas carried by Alberta Natural Gas  
16 Company so it wanted Arctic Gas to build another  
17 new line parallel to Alberta Natural Gas Company  
18 through British Columbia, so that was the way  
19 that was left.

20 Q That customer was  
21 the customer that you had agreed to sell gas  
22 to from Pan Alberta, is that right?

23 A Yes, that was the  
24 principal customer of Pan Alberta, Pacific Lighting  
25 Development Company or Corporation.

26 Q Now, is that diagram  
27 intended to show gas flows? Apparently it doesn't  
28 show the corporate identities.

29 A No. What it is intended  
30 to do is to take the same map that was used for



1 exhibit 218 because we are interested basically  
2 in the Canadian end of this project and that's  
3 mainly a map of Canada, and to impose on that some  
4 thing which -- we put the slide up, I said, this is  
5 just our map of the rival project and it is not intended  
6 to compete in precision, but this is what we  
7 conceive the -- what we understand the Arctic  
8 Gas Proposal from all the evidence that has  
9 been put in everywhere, I mean in these proceedings and  
10 other proceedings to presently constitute, and  
11 when we hear about the nine or ten or twelve billion  
12 dollars of a proposal, it is being described as  
13 that Alaskan link, the piece across Canada, the  
14 facilities of the Northern Border Group, the  
15 facilities of Pacific Lighting, the facilities of  
16 P.G. & E., to move the additional gas which I believe  
17 are quite fairly represented on this page, and that  
18 is all it was supposed to do.

19 Q My question was, is  
20 this intended to show gas flows?

21 A Not completely. It is  
22 intended more to show a pipeline system and then  
23 by arrows the direction of the continuing system as  
24 it would reach its ultimate markets. But we kind  
25 of ran out of map -- I mean --

26 Q It doesn't show who  
27 the owners are, and it doesn't show gas flows, so  
28 what is it?

29 A Well, it is a map --

30 Q Yes, I understand that --



S.R. Blair  
Cross-Exam by Goldie

A -- of the pipelines which are contained in the Arctic Gas Project as we presently understand it showing the project as a whole in red, but where we ran out of a place to run these lines to the ultimate markets of the United States we showed that that <sup>had</sup> happened by leaving an arrow at the end of a line. It's a map of pipeline routes.

Q And as I say it didn't do as the underlying map did: Identify the corporate personalities.

A No, it did not.

Q All right. Now, look at 220. What is that intended to show?

THE COMMISSIONER: Excuse me, Mr. Goldie, before you leave 219, you mean that it didn't identify the ownership of the Alaska leg and the ownership of the legs that go from the 49th parallel into the U.S.?

MR. GOLDIE: Yes, it didn't show any of the so-called -- it didn't show any of the ownership of the connecting facilities, let me put it that way.

It didn't show ownership of the Alaskan leg or ownership of the Northern border leg or ownership of the western legs, south of the border.

Now, it doesn't show gas flows because it doesn't show any gas flowing east to Canada through the TransCanada Pipeline, does it?



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Cross-Exam by Goldie

1 A No, I agreed with you.

2 It was not intended to show gas flows.

3 THE COMMISSIONER: Excuse  
4 me, Mr. Blair. Does it show new construction?

5 A Yes, that is exactly --  
6 that's the best answer. It shows the new construction  
7 of the pipeline system.

8 MR. GOLDIE:

9 Q But you don't show any-  
10 thing in TransCanada, do you?

11 A No, because the  
12 Arctic Gas Pipeline project as publicly described  
13 does not contain anything about showing the costs  
14 or design of gas flow in TransCanada to my  
15 knowledge and it hasn't been part of the discussion  
16 that I am aware of.

17 Q Although TransCanada  
18 stands in the same relationship to Arctic Gas as  
19 does the Northern Borders Group, which you have  
20 shown.

21 A Not the same relationship  
22 because the Northern Border Group is proposing as an  
23 inherent part of the integral part of the Arctic  
24 Gas project as described in other jurisdictions at  
25 least in the States, to build a whole new system  
26 expressly for the purpose of moving gas from the  
27 Arctic Gas Project, their capital costs are included  
28 in the figures quoted by Arctic Gas, their system  
29 is being designed in conjunction I believe with  
30 Arctic Gas, or close co-ordination of committees, and



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Cross-Exam by Goldie

1 this isn't my doing, I didn't make it  
2 this way, but Arctic Gas has chosen to identify the  
3 Northern Border extension as a part of its project  
4 and as far as I am aware it has never identified or  
5 emphasized a concurrent TransCanada expansion,  
natural though it is to expect as a part of the  
project. It is just not in the figures.

6 But that's just  
7 the way it's been done. I am not trying to characterize  
8 anything here, I am just describing what has  
9 been made public.

10 Q But we go on to the  
11 next one and there we have Foothills proposal  
12 with an arrow to a solid red line and that is the  
13 Foothills line, isn't it?

14 A Yes, it is.

15 Q And then there is a  
16 solid blue line which is unidentified and that is  
17 AGTL Canada?

18 A Yes.

19 Q And there is a dotted  
20 blue line and that is expansion of AGTL?

21 A It is partly AGTL -- well,  
22 the dotted blue line as I said when these charts were up,  
23 none of these dots are supposed to be exactly  
24 show the piece of line would be looped. They are  
25 to symbolize the process of expansion by looping,  
26 and we have said before that would be accomplished  
27 by AGTL Canada as to new facilities -- by its construc-  
28 tion of new facilities and by its obtaining the use



1 of existing facilities as the case may be.

2 Q There is a solid yellow  
3 line or orange line and that is Westcoast expansion  
4 as applied for as part of the Foothills proposal?

5 A Yes.

6 Q And then there is a dotted  
7 Westcoast and that is your assumption of Westcoast  
8 looping, or what?

9 A Well, this is the same  
10 answer, the answer when the slide was up. The  
11 dots illustrate for the purposes of this rather  
12 small map, where it wouldn't be practical to try to  
13 be precise about each section of loop and of  
14 course the looping occurs from year to year too, to  
15 show that the Westcoast system would be expanded by  
16 looping and extended to Vancouver Island with the  
17 new connection down in the bottom left hand corner.

18 Q Is there any application  
19 to extend the Vancouver Island before the National  
20 Energy Board?

21 A I couldn't say at the  
22 moment. There have been applications in the  
23 past. I forget whether they were before the  
24 National Energy Board. I think you would know much  
25 better than I. I don't know. But I think there  
26 will be one in due course.

27 Q Am I correct in my  
28 understanding that the sufficiency in Westcoast's  
29 present deliveries is limited to its export customer?

30 A Well, that's an involved



S.R. Blair  
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1 question. I do know as a matter of fact that  
2 the principle curtailment of deliveries by Westcoast  
3 has been to its U.S. customer, but I also know just  
4 from reading the press that the British Columbia  
5 market has or is in the process of reducing its  
6 consumption in order that the curtailment to the  
7 United States may be less. There have been statements  
8 of provincial government agreement between the  
9 Government in British Columbia and I think the  
10 state governments in the Pacific Northwest that that  
11 should be done. Now, I think, as I say, it's involved,  
12 I don't think it is easy to give an answer. I mean  
13 a simple yes or no .

14 Q Well, the immediate  
15 effect of providing Westcoast with the gas along the  
16 link that is shown there, would be to restore  
17 Westcoast's ability to provide gas for export,  
18 isn't that correct?

19 A Well, I guess it would  
20 depend on how much, because as I understand it, if  
21 there has already begun a reduction of consumption  
22 by B.C. users, then any additional increment of supply  
23 would be in some way allocated between those B.C.  
24 users and the Westcoast export customer and I  
25 don't know -- I have no basis to assume in what  
26 proportion that would occur. Certainly what has been  
27 said publicly in connection with the issue of the  
28 National Energy Board's report and the statements in  
29 Parliament by the Minister of Energy, Mines and Resources  
30 and others have contributed to generally an industry



S.R. Blair  
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1 expectation in a period of tightness of supply, there  
2 will be some sharing by Canadian markets of the  
3 reducing effect, rather than seeing all of the  
4 curtailment applied simply and directly to United  
5 States markets. So that I would think that probably  
6 that increase in supply to Westcoast would go  
7 to a degree to B.C. markets and a degree to export  
8 markets, but I don't know how  
9 to give you an exact formula for it.



S.R. Blair  
Cross-Exam by Goldie

1 Q And the green dotted  
2 line is your estimate of the expansion which would  
3 take place in the TransCanada system?

4 A Well, like the other  
5 colors of dots, first of all I said that these are  
6 colors showing that looping would be required and  
7 there have been estimates by both TransCanada and  
8 by the Foothills people of what that looping would be.

9 Q Well, whether it's  
10 your estimate or anybody else's, it's an estimate of  
11 the expansion which would take place in that system  
12 as a result of carrying Arctic gas.

13 A Yes, and then like, as  
14 we went through this thing in B.C., the green dots  
15 down as far as Montreal, and then at the end  
16 there is an extension because from our other dealings  
17 with the Quebec distributing company and the industrial  
18 consumers, we conclude that this project should be  
19 directed to making gas supply available to Quebec City  
20 and the markets between Montreal and Quebec to offset  
21 the <sup>growingly</sup> apparent risk to the Province of Quebec  
22 and users within the province of a very heavy reliance  
23 on imported crude oil.

24 Q And the expansions on the  
25 Westcoast system and the TransCanada system will take  
26 place regardless of who delivers Arctic gas, is that  
27 not correct?

28 A Yes, I'd say generally  
29 so, although not necessarily in the quantities and  
30 with the capital costs that have been described in our



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1 filing because I don't know as much about the availability  
2 of gas to those two systems from any other project as  
3 I know about it -- as we know about it in connection  
4 with our own project.

5 Q I think you've just  
6 finished telling the Commissioner these diagrams were  
7 not intended to depict the size of the expansion.  
8 They are merely diagrammatic indications that an expan-  
9 sion would take place. Isn't that correct?

10 A These particular three  
11 pages, that is correct; but elsewhere -- and we couldn't  
12 reproduce it in detail just as a practical matter  
13 on pages this small, <sup>there</sup> are specific calculations of  
14 expansion.

15 Q But for the purposes of  
16 these maps, to make these comparable, I suggest to  
17 you that ~~that~~ expansion shown on TransCanada and the  
18 expansion shown on Westcoast should have been shown  
19 on the Arctic Gas map, Exhibit 219.

20 A No, I disagree for this  
21 reason, that what I was trying to do with these maps  
22 and what we have said we would do, is describe the  
23 Maple Leaf project and describe the Arctic Gas project ,  
24 and the Maple Leaf project consists in its planning,  
25 design, and in the public descriptions of the project  
26 with what is shown on Exhibit 220. That is an expansion  
27 of Canadian systems from Vancouver Island to Quebec  
28 City. That's a fair -- I know when people say, "What  
29 is the Maple Leaf project?"

30 We say, "It's this new Foothills



S.R. Blair  
Cross-Exam by Goldie

1 Pipe Line Company and the corresponding expansions of  
2 Westcoast and trunk line TransCanada, and it will  
3 cost according to the then current estimates some  
4 \$3 billion to put into place initially; it can be  
5 done in a certain number of years; the pipe requirements  
6 are what they are," and the whole thing is spelled out.

7  
8 When one says, "What is the  
9 Arctic Gas project?"

10 I have to follow your client's  
11 definition of the project, and in terms of capital  
12 cost estimating, the maps that have been published, as  
13 I recollect them, the principal maps and the newspapers  
14 and stuff have shown something very similar to what  
15 is on Exhibit 219, and I think it's quite fair to  
16 show it that way.

17 Now, if you say, "Well, do I  
18 accept --" / <sup>if</sup> this helps to say, "Do I accept it, that  
19 the Arctic Gas project could also be conceived of  
20 and described as involving an expansion of the Trans-  
21 Canada system to move the gas eastward, the Canadian  
22 companies succeed in getting from it?" Of course it  
23 could, and I don't know why you don't do it.

24 THE COMMISSIONER:

25 You're speaking of the expansion of the TransCanada,  
26 there would be a further looping of TransCanada if  
27 delta gas were to be dedicated wholly to Canadian  
28 consumers.

29 A Yes, I'm sure there would,  
30 and of course if all other things were equal, it would  
31 be the same looping as if the same quantities of



S.R. Blair  
Cross-Exam by Goldie

1                   were  
2   delta gas coming to it through Foothills, and the amount  
3   of looping will depend on the quantity of delta gas and  
4   what extra capacity TransCanada may be finding itself  
5   with in those years, if there is a decline in the  
6   quantity of Alberta gas which it receives, which after  
7   a while is predictable, and all the same factors would  
8   apply. But I have not intended to take any particular  
9   advantage by leaving that schematically off the Arctic  
10   Gas map.

11                   MR. GOLDIE: Just one or two  
12   other minor points, Mr. Blair.

13                   Q     Page 16, --

14                   THE COMMISSIONER: Let's just,  
15   before you go onto these new points; your argument, Mr.  
16   Blair, is that by taking advantage of existing systems  
17   you can deliver Mackenzie Delta-Beaufort Basin gas  
18   to Canadian consumers, for whatever the capital cost of  
19   your project is. Do you, in that figure -- you said  
20   3 billion a minute ago, I thought it was 4 point  
21   something or other billion -- but in that figure do  
22   you include the cost of Westcoast and Alberta's systems  
23   being tied into the new Foothills line from the  
24   Mackenzie Delta? You do not in that estimate include  
25   the cost of delivering gas to Vancouver Island. Do you  
26   include the cost of looping TransCanada or do you not  
27   for the reason you gave me just a minute ago?

28                   A     We do include the cost  
29   of looping TransCanada. Perhaps I could quickly re-  
30   construct the figure and take the liberty of remember-  
31   ing approximately the capital amounts because     the



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1 detail is all spelled out in here, in any case. The  
2 initial capital investment in Foothills to put the  
3 new line into operation is about 1.8 billion; the  
4 estimated capital requirements in Westcoast Transmission  
5 is some 300 million, as I recollect; the estimated  
6 capital requirement in Alberta is initially something  
7 like 500 million, and that in TransCanada something  
8 like 700 million. So that if you add those up you have  
9 something like 3.3 billion dollars in total costs to  
10 do the job depicted on Exhibit 220, and the higher  
11 figure that you remember of 4 1/2 billion or so is  
12 -- are all the same facilities but carried through about  
13 five years of expansion to the time <sup>that</sup> the Foothills  
14 pipeline is filled. So it depends whether one  
15 wants to talk about the project in terms of the money  
16 to put it in place & operating, or whether one wants  
17 to anticipate several years of expansion. I've taken  
18 some liberties, I may be 100 million off.

19 Q That 4.5 billion cost is  
20 the 42-inch pipeline at 1,250 psi. fully loaded.

21 A Well, it is that in the  
22 Northwest Territories, plus all of the connecting  
23 facilities in Westcoast.

24 Q But it is when you reach  
25 that point in the Northwest Territories that you  
26 have to have those additional facilities in the south.

27 A Well, you have to have  
28 them all in place. When you put in the first 1 3/4  
29 billion dollars of capital in the Territories you have  
30 to immediately and simultaneously have the other 1.5



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1 in place in these other systems.

2 Q Yes.

3 A Then the whole thing  
4 grows to adding compression to the Foothills system  
5 in the Territories while these other companies continue  
6 their process of expansion and extension of systems.  
7 All of these figures are spelled out in great detail  
8 in the books. I am not meaning to be other than quick  
9 in giving the rough answers that I have just now.

10 THE COMMISSIONER: Well, maybe  
11 we could take a break for coffee, can we? A couple  
12 of minutes? Well let's stop for a few minutes then.

13 (PROCEEDINGS ADJOURNED FOR FEW MINUTES)  
14  
15  
16  
17  
18  
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30



(PROCEEDINGS RESUMED PURSUANT TO ADJOURNMENT)

MR. GOLDIE:

Q Mr. Blair, on page 24, question 29, the answer, you were asked about your facilities in Alberta, if I understand the -- or your answer is in relation to the Alberta facilities, am I correct in that?

A Yes, my answer was a general answer, but then answered first in the general affirmative, yes, I agreed and then it went on to suggest that the principle was applicable also to facilities within the province of Alberta.

Q Yes, and you state, "We have forecast what spare capacity will develop in the AGTL system in the future and you then went on to describe the slide which unfortunately we don't yet have a photograph of, and I would like to have and you needn't provide it for me now, the year by year forecast from which that slide is developed and in particular the precise points at which the spare capacity develops, do you follow me?

A I follow you. It won't be done particularly effectively by relating it right to the slide because I said when the slide was up there it was sort of an approximation to get the point across without being quantitatively the most precise work we have, but there is very precise work in the filing and it is already in record through the filing year by year of what the capacity will be



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in the future.

Q Well I am not so sure that the material in the filing does provide me with the information and I quite agree that this slide, I assume, simply taken from some other source. What I am interested in, and I am unaware that this is in the file, what I am interested in is the buildup of the spare capacity and an analysis and identification of where it occurs on the system. Do you follow me?

A Yes, I follow you.

Q Thank you and could I be provided with that please, at your convenience.

MR. GIBBS: Mr. Commissioner, we will provide it or that amount of it that's within the files, we'll point out to my friend so a combination of both, he gets what he wants.

MR. GOLDIE:

Q Now, it is an important feature of what I am asking for and I think inherent in what I am asking for that the sources of supply for which the capacity is built which becomes spare, do you follow me, or identify?

A I follow you, but I don't believe that it -- that I can provide you with a detailed listing of those sources of supply. I doubt if I can.

Q Well, I'd ask you to do your best please, because if I understand it as an important, if not the essential part of the



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1 Foothills application is that there will be spare  
2 capacity in the system at the time that Foothills  
3 delivers gas to Alberta Natural Gas Trunk Canada  
4 for redelivery to the AGTL system.

5 A Well, I have no doubt  
6 at all in our ability to show -- to make that  
7 point, that there will be spare capacity. What  
8 I think I must protect though, is this: that a  
9 portion of the spare capacity will exist from facilities  
10 still to be built.

Q Yes.

A While a portion will  
exist from facilities which exist now, and for  
the facilities still to be built, we run into two  
paractical matters.

One is that to a degree our  
calculations will have supposed the continuing  
trend of growth of gas reserves and supply in Alberta  
as there is every reason to forecast, there  
has been a long history of growth and supply, we are  
confident that it will continue into the future  
to some degree and by its nature, that is a matter  
of analysing a trend, historic statistics and  
future geological and other assessments and  
deriving a trend number so that -- that's a little  
bit -- to ask where those sources of supply would  
be, could be a little bit like saying where will  
the next ten gold discoveries be in the Northwest  
Territories. You know, it would be nice to know,  
but not that easy for anyone to give you an



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authoritative list. It is more a matter of trend of supply than identifying individual sources. The other reason is that even where we do know some of the individual sources, as we do, sources of supply that will require future expansions, to some degree that information is confidential between Alberta Gas Trunk Line Company and the shippers of gas that it serves, people like TransCanada, local utilities in Alberta, Alberta & Southern, and I am just not completely free to turn over to anyone else what their projections are of the future sources that they wish us to attach.

So those are the two reasons.  
not  
I am finding it difficult to do because we haven't got a lot forecasting, but because the forecasting in a system such as ours is necessarily rather complex and is just not that easy to give you the whole picture authoritatively.

Q Well, what we are asking for is the forecast and we will struggle with the complexity, but You understand that it is necessary to get at the build-up of that spare capacity which implies in respect of future construction between now and the delivery of gas from the frontier, a forecast of sources of supply and markets, because you are bringing gas on either here or here or down here somewhere and all we are asking for is the -- that forecast. Do I make myself clear?

A Oh, you make yourself really clear because this is what we are doing. This



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1 is what we have had to struggle with, is doing exactly  
2 this work in order to project the annual capital  
3 cost and the design of sections of loop that we  
4 have. What I am saying is that when we show  
5 you our worksheets, you cannot count on the detail  
6 that you described in your first question, of  
7 an exact definition of what all the supply fields  
8 will be. To some degree we had to make assumptions  
9 and generalizations.

10 Q But you appreciate that  
11 it is an essential part of understanding your  
12 base case which utilizes spare capacity to know  
13 where these supplies which give rise to this  
14 increased capacity to be built takes place.

15 A Well, of course I  
16 appreciate that.

17 Q Yes, well, all right, I  
18 will leave that request with you and Mr. Gibbs.

19 With respect to that and  
20 as a subsidiary question, a few minutes ago we were  
21 talking about pipe sizing and relation to the  
22 carriage of combined flows of gas from Alaska and  
23 the Beaufort Basin. I suggest to you that if  
24 we take the minimal case of two and a quarter b.c.f.  
25 a day from Prudhoe and one b.c.f. a day from the  
26 Beaufort Basin, if that was delivered to the AGTL  
27 system, it would require the construction of a  
28 completely new system throughout Alberta.

29 A Oh, well, I doubt that  
30 that is correct. I say it cautiously because one



S.R. Blair  
Cross-Exam by Goldie

would have to run through the calculations and  
I am not aware that that particular calculation has  
been done recently, but I --

Q Well --

A The more I think about  
it the more I think I understated that. I am  
quite confident that that is not the case.

Q Are you suggesting that  
there would be spare capacity in the AGTL system  
that could accomodate 3 1/4 b.c.f. per day through  
Alberta?

A No, that is a different  
question. What I am suggesting is that there is  
sufficient capacity in the AGTL system, but it  
would be not necessary to build entirely new whole  
system across Alberta to move that quantity of gas  
and I am quite confident in that answer.

Q Wouldn't you have to  
completely loop your existing system, by existing  
system you know that I am not understanding -- I am  
not speaking about the spaghetti bowl of three and  
four inch lines, I am talking about the system  
that would carry gas from the point of acceptance  
on the border to the point of delivery at Empress and  
at the border. Wouldn't you have to loop the  
existing system to carry that, completely loop it?



S.R. Blair  
Cross-Exam by Goldie

1 A I can't give you a  
2 "yes" or "no" to that. I doubt it. You haven't told  
3 me what the quantity split is, and it would  
4 depend on exactly when it was done, what the concurrent  
5 growth of Alberta's supply was and other factors. I  
6 can't simply say "yes" or "no". I say, "I doubt it."

7 Q Well, the split doesn't  
8 take place until you get fairly far down the province,  
9 does it?

10 A Well, it takes place  
11 about 2/3 of the way, I guess, down the province.

12 Q And I am suggesting that  
13 to carry it at least to that point would require  
14 complete looping of any system that would exist in  
15 Alberta at the time that this gas came on. Say 1980-81.

16 A No, you're not right.

17 Q You do not think you could  
18 -- I'm sorry, are you saying you could accommodate  
19 three and a quarter Bcf. from the Alberta border to  
20 the point of split 2/3 of the way down Alberta without  
21 a complete looping of your existing facilities?

22 A Yes, to my best judgment  
23 I'm saying that. Again, that's our study.

24 Q Well, will not these  
25 forecasts of build-up provide us with some indication  
26 of that?

27 A They may or may not  
28 coincide with a particular assumption that you've  
29 given me. They will provide us with the basis of showing  
30 the total quantity, in our range of build-up, at which



S.R. Blair  
Cross-Exam by Goldie

1 a complete pipeline system exists. But I think I --  
2 you see, we've done some calculations and you're asking  
3 me to give you in a summary way the result of a very  
4 big calculation with some base figures I've never used.  
5 I think I'm on solid ground this way in saying that  
6 I remember that for the total throughput of the Mackenzie  
7 Delta quantities which we have assumed, which total  
8 2.4, 2.5 billion cubic feet a day, that when we  
9 calculate the design to move that quantity of gas  
10 through the province that the result in its pure  
11 engineering, before we apply any policy questions,  
12 was still something short of the requiring of a completely  
13 continuous new line.

14 Q Something short?

15 A Something short, and  
16 that the continuous line for arctic gas, we were then  
17 looking at in itself, included some pieces of loop,  
18 a substantial split, which were already calculated to  
19 be in place before the arctic gas started to come.  
20 That's about the closest I can do to match our real  
21 study with the new case that you are suggesting to  
22 me, and I would tend to judge from that that we would  
23 find that the three billion a day was still something  
24 short. It's tough, I mean you're asking me to take  
25 some new data and give you a summary answer which  
26 would take months and weeks to run through. I kind  
27 of doubt if what you say is so.

28 Q Let me see if I've  
29 understood what you've told me so far. At 2 1/4  
30 Bcf. a day you found you were still something short of



S.R. Blair  
Cross-Exam by Goldie

1 a complete new system.

2 A Yes, I said 2.4 billion  
3 a day.

4 Q I'm sorry, 2.4.

5 A Yes, and I also said that  
6 the components which I had included in that design  
7 included some components of loops put in in previous  
8 years, so I was considerably short of an incrementally  
9 new system to move Arctic gas alone.

10 Q It included some components  
11 which will be put in between now and the delivery of  
12 Arctic gas.

13 A That's exactly what I  
14 meant.

15 Q Right. Now, my suggestion  
16 to you is that if you were to take, not 2.4 Bcf. but  
17 3.25 Bcf. you would in fact have, to all intents and  
18 purposes, a completely new system.

19 A Well, I'm saying I can't  
20 agree with you on that. I simply can't endorse your  
21 supposition as I'm sitting here. I don't know whether  
22 that's true and I doubt it.

23 Q But if the 2.4 Bcf.  
24 was something short, the 3 1/4 Bcf. would be even  
25 shorter. In other words, the difference between the  
26 complete new system and one that still utilized compon-  
27 ents of the old would be considerably less than the  
28 case of 2.4.

29 A Yes.



S.R. Blair  
Cross-Exam by Boldie

1 Q Now, at that point are  
2 you not looking at the economics of a completely new  
3 line as opposed to a looping program which in effect  
4 creates a new facility? Wouldn't you be comparing those  
5 two?

6 A In part. I find your  
7 questioning to me hypothetical to a point in which it's  
8 really difficult to give you a useful answer. I would  
9 agree that if you had hypothetically an instant need to  
10 transport 3 1/4 billion cubic feet a day you would  
11 have a basis for considering the installation of a new  
12 line as an alternative to looping on an existing system.  
13 Dealing just with mainline design, before you consider  
14 other factors, you would still have the question of  
15 whether there were ways of adding loop to the existing  
16 system, having regards to the components of loop already  
17 in it which might be more economical, and that would  
18 have to be figured out; but then you get into a whole  
19 other realm of factors such as environmental operating  
20 assimilation which, in our view, make it significantly  
21 more desirable to expand an existing system on the  
22 basis of its' established rights-of-way operating  
23 basis, telecommunications and so on, than to build a  
24 whole new express line and parallel it.

25 Q Is it -- I'm sorry.

26 A Those factors have in  
27 part a capability of being measured in terms of cost  
28 and that's thrown into the equation, and then they have  
29 in part aspects which cannot be measured just only in  
30 costs, but become environmental and other considerations,



S.R. Blair  
Cross-Exam by Goldie

1 are still material and have to be given some weight,  
2 and we have to take all those things into consideration.  
3 My judgment, as well as you can sort of go by the seat  
4 of your pants on a situation like this is still that  
5 we would tend to assimilate that line with the existing  
6 pipeline, and other pipeline operators would do the  
7 same thing as historically these expansions have  
8 occurred.

9 Q Well, isn't the measure  
10 of how close you will be to a complete new system or  
11 a completely separate system, your undertaking to the  
12 Government of Canada that by -- at the end of five  
13 years, AGTL Canada will at a throughput of 2 1/4  
14 Bcf. a day have a complete system under its own  
15 ownership and jurisdiction, isn't that a measure of  
16 how close you are at 2 1/4 Bcf. to this complete  
17 system that we're talking about now?

18 A O.K., there are two  
19 considerations to this answer. The first is that  
20 yes, it is a good measure in <sup>terms to</sup> close to meeting a complete  
21 system, and when I said we'd be something short of  
22 meeting all the pipe, we looked at it and said this  
23 is close enough that we would probably, in order to  
24 give a good assurance that there will be a real  
25 effort to put in a continuous system within a reasonably  
26 short time, we'd say that we would close those gaps  
27 even if they weren't absolutely needed, if the govern-  
28 ment wanted us to.

29 The other aspect and the more  
30 important one is this. That continuous system that we



S.R. Blair  
Cross-Exam by Goldie

1 have undertaken to provide is not to be constructed as  
2 an incrementally new pipeline across the province. I  
3 emphasize that. It's a system which would be composed  
4 in part of new pipeline built only to move Arctic gas  
5 and in part of components of systems which had been  
6 built previously to move Alberta gas. So it is still  
7 a long way from saying that to move that quantity of  
8 gas we would build in a whole new line across the  
9 province.

10 Q It will be a system that  
11 will be new construction for the purpose, together  
12 with components of the AGTL system which will be built  
13 between now and 1979 or 1980.

14 A Or which already exist.

15 Q Yes. Now, I suggest to  
16 you that the gap, as you put it, would certainly be  
17 closed by an additional throughput of a billion Bcf.  
18 a day.

19 A Well, that's what you  
20 were suggesting and I was saying that I didn't know,  
21 but I doubt it.

22 Q All right.

23 A And I haven't changed  
24 in just these few minutes of thinking about it.

25 Q But I think we've got  
26 this far, that given all the qualifications and accept-  
27 ing the fact that you were considering this without  
28 the help of calculations before you -- and I appreciate  
29 that -- haven't we got this far, that with Alaska  
30 gas in the quantities that I've spoken about, namely



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1 2 1/4 Bcf. a day, and delta gas of a billion Bcf. a  
2 day, you were looking at so substantially a new system  
3 that the real issue between you and Canadian Arctic  
4 was the ownership of a new system through Alberta.  
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S.R. Blair  
Cross-Exam by Goldie

1 A No, because the other  
2 very important item that has been omitted in our  
3 recent exchange here is the item of time. Your  
4 suggestion that there would be available  
5 suddenly, instantly, three and a quarter billion cubic  
6 feet of new gas supply to move across the province,  
7 is hypothetical beyond anything that has been suggested  
8 by either applicant. Both applicants have been  
9 assuming that there will be a gradual build up over  
10 a number of years of the daily quantities of gas  
11 available from both sources and all of that contributes  
12 considerably to the advantage in economy, the caution  
13 and prudence of incrementing gradually on an existing  
14 system so that you only build for what you are  
15 sure you see before you. You go cautiously on a  
16 more manageable, more drawn out project than a  
17 big crash bang program to do everything at once and  
18 so that's a big factor of difference between  
19 the two projects which is obscured by the hypothetical  
20 assumption that there would suddenly and instantly  
21 be 3 1/4 billion a day available of new supply.

22 Q Well, let's go at it  
23 another way. The issue is really the ownership of  
24 what you are proposing will be a completely separate  
25 system in five years. Ownership and control of a  
26 completely separate system in five years moving  
27 2 1/4 b.c.f. a day and a system which at the time  
28 you were in the study group was looking at a minimum  
29 of 3 1/4 b.c.f. a day.

30 Now, wasn't it the issue



1 of the control of that 3 1/4 b.c.f. a day, whether  
2 reached in five years, the same period of time that  
3 we are talking about as reaching a separate system  
4 for your own ? Wasn't that the real issue of  
5 difference between you and the remainder of the  
6 study group?

7 A Well, we are getting  
8 closer to defining one of the issues, but even to  
9 finish that definition I would have to add a  
10 few things. The capacity proposed by Arctic Gas  
11 was not 3 1/4 billion cubic feet a day, it was  
12 4 1/2 billion cubic feet a day in the the top  
13 end and 6 3/4 billion a day out the bottom end of  
14 ALberta.

15 Q Mr. Blair, I am  
16 sorry, I have got to interrupt you on that. I thought  
17 we had it established that you were aware of the  
18 reason for the design of the lower laterals and  
19 you knew that that design was done in the absence  
20 of any knowledge as to the split so they were  
21 sized on that basis.

22 MR. GIBBS: Oh, that has  
23 never been established up to this point, Mr.  
24 Commissioner, at all.

25 A Sir, I am aware of a lot  
26 of things. In the way this developed, I am aware,  
27 if you want us to reconstruct some of these negotiations  
28 which I have been trying not to lead into ,that had  
29 it not been for some negotiations we were taking that  
30 the laterals south would have been larger than they



are presently. But in the end a lot has been said about these laterals and a lot in different jurisdictions. I am aware that evidence has been offered that there may yet be large quantities of Canadian gas going to the United States and there are good reasons to size those laterals into the States, -- and what I just have to go on in the end on the record of what has been filed for and recently we got -- we took the aggregate a few months ago. They were obtained for us. The aggregate of the daily quantities of design capacity named by the applicants to bring gas through Arctic Gas into the United States and I think the aggregate was 6.9 billion cubic feet per day of initial installed capacity and I do have to go more on the face of these applications than to listening to every interpretation as to whether or not they may be changed in the future.

Q You have indicated that you are familiar with the application of Arctic Gas. You have stated that that's how you reached certain conclusions. Can you tell me what volumes of gas the tariff is based on?

I interrupted you when you were answering my question which I come back to and this time I will allow you to complete your answer without interruption. I am putting it to you again that the real issue between you and the rest of the study group was the question of ownership and control of a line sufficient to carry through the



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Province of Alberta the amounts of gas which would be delivered from the Delta to Canada and from Alaska to the United States.

Now, can you say whether that was an issue between you and the remainder of the study group, or whether it was not.

MR. GIBBS: Mr. Commissioner, I think my friend should be aware of before Mr. Blair answers, is that he has said that the real issue now -- Mr. Blair is going to answer that question, he must feel free to recite what the issues were and there were obviously more than one and that may be getting exactly into what I think my friend and his client doesn't want disclosed which are the confidential matters.

MR. GOLDIE: I have no instructions from my client on that. The question that I have put is that there were -- that the application as filed indicates a transmission of 3.25 b.c.f. a day rising to 4.5. Would you agree with that?

MR. GIBBS: Again, he says "the application as filed". Now, does he talk about the tariff structure or the design capacity?

MR. GOLDIE: I am talking about the --

MR. GIBBS: -- because they are two different things and if he wants Mr. Blair to answer he should be specific on what he



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1 is asking for.

2 MR. GOLDIE: I am talking  
3 about the tariff as filed, having regard to the statements  
4 made in the application about the design of the lower  
5 laterals.

6 THE COMMISSIONER: Well,  
7 has this question been determined? If it is one that  
8 should be carefully framed and all your questions are  
9 of course, take a moment if you wish, to confer  
10 with Mr. Horte.

11 MR. GOLDIE: Well, do you  
12 have any problem with the question that I asked?

13 A Well, right at the  
14 moment I think that I have got three questions  
15 before me. I don't have a problem with any of them as  
16 I understand them.

17 Q Well, suppose you try  
18 answering them.

19 A Well, I understand the  
20 first question is, am I aware of the daily quantities  
21 and the corresponding tariff calculations which  
22 have been employed by Arctic Gas, and I would have  
23 to say that I believe I am generally aware, I believe  
24 that there is some inconsistency at the moment between  
25 the daily quantities and tariff calculations in  
26 the various components of the applications and  
27 jurisdictions, which I don't say critically because  
28 it's -- as time passes and circumstances change,  
29 maybe there is good reason for these things to  
30 happen, and my understanding is that the application,



1 the dealing with tariffs, the application of Arctic  
2 Gas in Canada and the Canadian authorities has  
3 been based on quantities building up to  
4 billion  
4 1/2 cubic feet a day.

5 I have pointed out that  
6 it has more outlets than it has inlets, but -- and  
7 that is a matter of effecting the capital cost which  
8 I suppose shows up in the tariff calculation because  
9 all of the facilities are covered by the capital  
10 cost. To my best knowledge it is still true that  
11 the aggregate capacity of the facilities which  
12 Arctic Gas American members have applied to build  
13 as wholly new points of entry into the United  
14 States, has a capacity of about 6.9 billion cubic  
15 feet a day and the last I heard --

16 THE COMMISSIONER: That's  
17 the 48 inch and the two 42 inch --

18 A Yes, sir.

19 THE COMMISSIONER: Pipes, yes.

20 A And certainly I suppose  
21 that that and the design of these delivery laterals  
22 in southern Canada has a meaning to a Canadian  
23 company observing this happen. It is my understanding  
24 and I am less sure of this because I haven't been  
25 particularly a student of it but I was told by  
26 our staff recently, fairly recently that it looked  
27 to us as though the tariff calculations in the  
28 United States filed with the regulatory authorization  
29 authorities, they had also anticipated 6.9 billion  
30 cubic feet a day, you know, figured out in cents and



S.R. Blair  
Cross-Exam by Goldie

1 m.c.f. So, it is on that information, which I hope  
2 is correct, that I am basing my remarks about  
3 an export system and my understanding of tariffs  
4 and quantities. Now, I still have two other  
5 questions -- I think you left me with three  
6 questions and that is the first -- my answer to  
7 the first one.

8 Q Well, that certainly  
9 wasn't the answer to my first question. The  
10 -- I'll go back and see if we can't get at this  
11 reasonably simply. Given the quantities that  
12 I am talking about which is three and a quarter,  
13 given that quantity and just stick with that  
14 quantity because that is where the tariff starts,  
15 isn't it?

16 A Is this your new hy-  
17 pothetical quantity of an instantaneous --

18 Q No, I want the  
19 filed tariff that you have been talking about.  
20 That's where it starts.

21 A Okay, well, that's  
22 another three and a quarter, that is not the  
23 same three and a quarter we were talking about a  
24 little while ago.

25 Q I am talking about  
26 a total of three and a quarter, two and a quarter from  
27 the delta, from Alaska and one from the Delta -- now  
28 that is the base case in the tariff isn't it?

29 MR. GIBBS: Well, let's  
30 show it to him then so he knows what he is looking at.  
Better for him not to be in doubt.



S.R. Blair  
Cross-Exam by Goldie

1 THE COMMISSIONER: Take a  
2 minute if you wish, Mr. Goldie.

3 MR. GOLDIE: Yes, thank you,  
4 Mr. Commissioner.

5 THE COMMISSIONER: Excuse me,  
6 Mr. Goldie, I was only going to sit till about 4:30.  
7 If you prefer, we could adjourn now and start at nine  
8 in the morning and then you'd get a -- is that all  
9 right?

10 MR. GOLDIE: If you did that  
11 I can provide Mr. Gibbs with all the references.

12 MR. SCOTT: Mr. Bell had  
13 something he wanted to raise.

14 THE COMMISSIONER: All right.

15 MR. BELL: Yes, just one minor  
16 matter before we adjourn, sir. In his cross-examination  
17 this morning Mr. Goldie referred to a document which  
18 I believe he called the Study Group agreement, and  
19 he read some excerpts from it. I was wondering if you  
20 could tell us if that's an exhibit, and if it isn't  
21 whether it should be?

22 MR. GOLDIE: Included in what?

23 MR. BELL: This was during your  
24 cross-examination of Mr. Blair, I believe. You refer-  
25 red to a --

26 MR. GOLDIE: You say included --

27 MR. BELL: You referred to a  
28 document called a Study Group agreement, I think, and  
29 you read something from it.

30 MR. GOLDIE: Yes. I'm sorry,



S.R. Blair  
Cross-Exam by Goldie

1 I thought you asked me whether it was included.

2 MR. BELL: Is that an exhibit?

3 MR. GOLDIE: No, not as far as

4 I am aware.

5 MR. BELL: Well, perhaps it  
6 should be, sir.

7 MR. GOLDIE: Yes, perhaps it  
8 should be.

9 THE COMMISSIONER: Well then, it  
10 will be. Arctic Gas --

11 MR. SCOTT: I presume Arctic  
12 Gas will produce it and it will be marked in due course.

13 THE COMMISSIONER: Well, does  
14 that satisfy you? Well, we'll adjourn to tomorrow.

15 (PROCEEDINGS ADJOURNED TO AUGUST 20, 1975)

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